

Safring News

The Journal of the South African Bird Ringing Unit (SAFRING)

Editor: H. Dieter Oschadleus
DTP: Marja Wren-Sargent

Artwork: Cape Gannet (on p. 92) by Liz McMahon was taken from *The atlas of southern African birds*, 1997, edited by Harrison, J.A., Allan, D.G., Underhill, L.G., Herremans, M., Tree, A.J., Parker, V. & Brown, C.J. Vol. 1. Johannesburg: BirdLife South Africa.

SAFRING constitutes a part of the Avian Demography Unit, a formally recognised research unit in the Department of Statistical Sciences at the University of Cape Town, South Africa. The mission of the Avian Demography Unit is to contribute to the understanding of bird populations, especially bird population dynamics, and thus facilitate their management and conservation. This mission will be achieved through mass participation projects, long-term monitoring, innovative statistical modelling and population-level interpretation of information. The emphasis will be on the curation and analysis of data, and the publication and dissemination of results.

Subscription information: *Safring News* is the biannual journal of the South African Bird Ringing Unit. A copy of each issue is sent, free of charge, to SAFRING ringers and to ringing schemes worldwide. It is also available on subscription, at an annual rate of R30 for individuals and R60 for libraries. Orders, and enquiries about foreign subscription rates, should be sent to:

SAFRING, University of Cape Town,
Rondebosch 7701, South Africa
Telephone: 021-650-2421/2
Facsimile: 021-650-3434
Email: [safring@maths.uct.ac.za](mailto:sufring@maths.uct.ac.za)
Home page: www.uct.ac.za/depts/stats/adu

Vignettes: Submission of line drawings and vignettes would be welcomed.

Previous issues: For back numbers, please contact SAFRING.

Reviews: The Editor will consider any item relevant to bird ringing or migration studies.



**AVIAN
DEMOGRAPHY
UNIT**

SAFRING is sponsored by the South African Department of Environmental Affairs and Tourism, BirdLife South Africa, the Namibian Ministry of Environment and Tourism, and the Tygerberg Bird Club. The University of Cape Town provides serviced accommodation.

Editorial

This is a full issue of *Safring News*, thanks to all the contributors! Some papers are analyses of several years of ringing effort, while others focus on specific species or groups.

In September 2000 I attended the Tenth Pan-African Ornithological Congress in Kampala, Uganda. It was exciting to meet ringers and ornithologists from many African countries again.

During an informal meeting we discussed the need to improve ringing links throughout Africa. An example of our lack of knowledge about each other is the fact that I had never heard of Malcolm Wilson, who has been ringing in Uganda for some years, until shortly before this Congress! The benefits of better communication would include tackling projects spanning many countries such as the colour ringing of Cattle Egret *Bubulcus ibis*. Some Cattle Egrets move regularly from South Africa to central Africa. Naturally such projects would require funding.

A possible way of improving communication between ringers in Africa would be to change this publication from *Safring News* to *Afring News*. *Afring News* would provide a forum for ringing results from eastern Africa and elsewhere. Owing to the small numbers of ringers in the rest of Africa, this change will result in a small increase in the number of readers, and will enable ringers throughout Africa to keep in touch with each other. These ideas still need to be put to the SAFRING Steering Committee.

After the congress I spent a few days in Nairobi and had a ringing session with the ringing group there. It was exciting to work with the group of enthusiasts and see how similar the process is there. It was fun to handle some species not found in southern Africa, for instance Baglafaecht's Weaver *Ploceus baglafaecht*. Colin Jackson, who started the ringing group, is revising the age codes, and these could be used throughout Africa.

The ringing training workshop at Wakkerstroom was very successful (see article in this issue). The organization of the workshop was much improved due to the lessons learned at Witsand. A project for the future is to work on an ageing and sexing guide. In the next few months I hope to put a standard form on the web-page for ringers to fill in information for species they know well. In the meantime, send ageing and sexing articles to *Safring News*!

Ringers are encouraged to participate in large scale ringing projects, particularly European Swallows and Redbilled Queleas. The Department of Agriculture has again made some limited funds available for ringing quelea, so go out and get them!

Unfortunately Cynthia Best was retrenched in October due to financial constraints. Cynthia is thanked for her work at SAFRING over the last seven years.

A special thanks to our sponsors – see the next page.

Dieter Oschadleus

Safring News to change to Afring News?

See above!



The **Department of Environmental Affairs and Tourism** is the main sponsor of SAFRING.



The percentage of the SAFRING budget provided by the **Namibian Ministry of Environment and Tourism** is very close to the Namibian share of birds ringed.



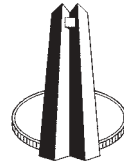
Besides direct sponsorship of SAFRING, many of the **branches of BirdLife South Africa** help cover the costs of rings for their members.



We are grateful to the **Tygerberg Bird Club** for a grant which supports the running costs of SAFRING.



sponsored the publication of the *Ringing Manual*.



RESBANK CYCLING

The **Reserve Bank** sponsored SAFRING last year through the Carousel African Penguin Cycle Challenge.

We especially appreciate the support provided by **WWF-SA, Schuurman Metal Pressing, SAP Southern Africa and the Royal Dutch Embassy** in Pretoria to help meet the enormous additional costs to SAFRING caused by the sinking of the *Treasure* in June 2000.



Papers: Localities

Ringling efforts in two South African mistbelt mixed *Podocarpus* forests

Craig Symes^a, Olaf Wirminghaus^b & Colleen Downs

School of Botany & Zoology, University of Natal, Private Bag X01,
Scottsville 3209; email: symes@nu.ac.za

^acorresponding author; ^bdeceased

INTRODUCTION

Mistbelt Mixed *Podocarpus* forest is one of eight forest types found in KwaZulu-Natal Province, South Africa (Cooper 1985). Characteristic bird species of these naturally fragmented forest patches include Knysna Lourie *Tauraco corythaix*, Narina Trogon *Apaloderma narina*, Cinnamon Dove *Aplopelia larvata*, Orange Thrush *Zoothera gurneyi*, Crowned Eagle *Stephanoaetus coronatus* and Starred Robin *Pogonocichla stellata* (Cooper 1985). This forest type occurs from an altitude of 900–1700 m a.s.l. from Alice in the Eastern Cape Province, through the midlands of the former Transkei, to Qudeni in the midlands of KwaZulu-Natal (Moll 1972; Cooper 1985; Midgeley *et al.* 1997). Naturally occurring forest patches range in size from a few hectares in valleys to over 1000 hectares at Blinkwater forest near Seven Oaks, KwaZulu-Natal (Cooper 1985). Indications are that in the past they occupied a larger area than today (Fourcade 1889; King 1940; Rycroft 1944; Moll 1972; Wager 1976; Cooper 1985; McCracken 1987). Furthermore, anthropogenic disturbance processes and exploitation threaten forest specific species found in these forests (Cooper 1985; Midgeley *et al.* 1997). The aspect is predominantly south facing and rainfall often exceeds 1000 mm per annum, falling mainly in summer (Moll 1972). Temperatures range from –4°C to 37°C with a mean of 16°C (Moll 1972).

Unique assemblages of birds have evolved in these forest patches and were investigated

by the initiation of monthly observations and a long term bird ringing project in and near two forests in the KwaZulu-Natal Midlands. Opportunistic ringing was done in order to record species not seen or heard and to supplement observational data. This project was also initiated to investigate longevity of afro-montane forest bird species and preliminary results of these ringing efforts are presented and discussed.

MATERIALS AND METHODS

1. Bird ringing

Bird ringing was carried out periodically from August 1994 to April 1999 at two study sites (Table 1) using 12 m × 2 m × 16 mm mesh nets. Nets supported by 3 m aluminium poles were placed along a transect at each ringing site. Netting at Hlabeni occurred along a 50–70 m transect in the north-east portion of the forest, in adjoining *Protea caffra*-grassland on the north east margin of the forest (29°57'S, 29°45'E), and near a perennial stream on the north-east margin of the forest. All sites were situated <400 m from one another. At Ngele forest netting occurred along a vehicle track through the forest (30°31'S, 29°40'E), at Mackton Lodge garden (an old farmhouse near Ngele forest) (30°32'22"S, 29°40'32"E), and at the SAFCOL Offices (South African Forestry Company Ltd.) (30°36'S, 29°44'E) in a patch of artificially planted *Protea* species. Netting time period and length of net erected were recorded.

Table 1. Summary of study sites.

Forest	Locality	Area (ha)	Altitude
Hlabeni forest	29°58'S, 29°44'E	402	140 m–1680 m
Ngele forest	30°32'S, 29°42'E	752	1250 m–1550 m

Table 2. Bird species ringed at respective forest ringing sites showing individuals ringed and recaptures more than a month later in parentheses (¹ indicates only caught outside forest, ² indicates only caught inside forest, ³ indicates forest specific species (Oatley 1989), ⁴ indicates forest utilizing species).

Species	Hlabeni	Ngele	Total	
African Goshawk ^{3, 4}	<i>Accipiter tachiro</i>	2	–	2
Rameron Pigeon ^{1, 4}	<i>Columba arquatrix</i>	13	–	13
Cape Turtle Dove ^{1, 4}	<i>Streptopelia capicola</i>	1	–	1
Cinnamon Dove ^{2, 3, 4}	<i>Aplopelia larvata</i>	2	–	2
Knysna Lourie ^{1, 3, 4}	<i>Tauraco corythaix</i>	–	1	1
Wood Owl ^{2, 3, 4}	<i>Strix woodfordii</i>	1	–	1
Fierynecked Nightjar ¹	<i>Caprimulgus pectoralis</i>	–	2	2
Speckled Mousebird ⁴	<i>Colius striatus</i>	–	7	7
Narina Trogon ^{2, 3, 4}	<i>Aploderma narina</i>	–	1	1
Olive Woodpecker ^{2, 3, 4}	<i>Mesopicus griseocephalus</i>	2	–	2
Forktailed Drongo ^{1, 4}	<i>Dicrurus adsimilis</i>	–	1	1
Blackheaded Oriole ^{1, 4}	<i>Oriolus larvatus</i>	1	–	1
Southern Black Tit ^{1, 4}	<i>Parus niger</i>	3	1	4
Bush Blackcap ^{2, 3, 4}	<i>Lioptilus nigricapillus</i>	–	7	7
Blackeyed Bulbul ⁴	<i>Pycnonotus barbartus</i>	9	6	15
Terrestrial Bulbul ^{2, 4}	<i>Phyllastrephus terrestris</i>	5(1)	7(1)	12(2)
Sombre Bulbul ⁴	<i>Andropadus importunus</i>	6	6(2)	12(2)
Olive Thrush ⁴	<i>Turdus olivaceus</i>	11	26	37
Orange Thrush ^{2, 3, 4}	<i>Zoothera gurneyi</i>	4(2)	1	5(2)
Stonechat	<i>Saxicola torquata</i>	1	–	1
Chorister Robin ^{2, 3, 4}	<i>Cossypha dichroa</i>	5(2)	2	7(2)
Cape Robin ⁴	<i>Cossypha caffra</i>	11	7(3)	18(3)
Starred Robin ^{2, 3, 4}	<i>Pogonocichla stellata</i>	11(2)	12	23(2)
Barratt's Warbler ^{2, 3, 4}	<i>Bradypterus barrattii</i>	–	12(4)	12(4)
Yellowthroated Warbler ^{2, 3, 4}	<i>Seicercus ruficapillus</i>	8(2)	4	12(2)
Barthroated Apalis ^{2, 3, 4}	<i>Apalis thoracica</i>	8(1)	17(5)	25(6)
Greenbacked Warbler ^{3, 4}	<i>Camaroptera brachyura</i>	3(3)	4	7(3)
Levaillant's Cisticola ¹	<i>Cisticola tinniens</i>	1	1	2
Lazy Cisticola ¹	<i>Cisticola aberrans</i>	1	–	1
Dusky Flycatcher ^{2, 4}	<i>Muscicapa adusta</i>	–	3	3
Cape Batis ^{3, 4}	<i>Batis capensis</i>	7(1)	15(3)	22(4)
Bluemantled Flycatcher ^{2, 3, 4}	<i>Trochocercus cyanomelas</i>	2	2	4
Paradise Flycatcher ⁴	<i>Tersiphone viridis</i>	2	–	2
Cape Wagtail ¹	<i>Motacilla capensis</i>	–	1	1
Fiscal Shrike ¹	<i>Lanius collaris</i>	–	5	5
Southern Boubou ^{2, 4}	<i>Laniarius ferrugineus</i>	1	3	4
Puffback Shrike ^{2, 4}	<i>Dryoscopus cubla</i>	1	–	1
Redwinged Starling ^{1, 4}	<i>Onychognathus morio</i>	2	5	7
Gurneys Sugarbird ^{1, 4}	<i>Promerops gurneyi</i>	13(2)	10(4)	23(6)

(Table 2 continued)

Species		Hlabeni	Ngele	Total
Malachite Sunbird ^{1,4}	<i>Nectarinia famosa</i>	12(1)	–	12(1)
Lesser Doublecollared Sunbird ^{3,4}	<i>Nectarinia chalybea</i>	12	20(2)	32(2)
Greater Doublecollared Sunbird ⁴	<i>Nectarinia afra</i>	1	3(1)	4(1)
Black Sunbird ^{1,4}	<i>Nectarinia amethystina</i>	13	9(1)	22(1)
Collared Sunbird ^{2,3,4}	<i>Anthreptes collaris</i>	1	5(2)	6(2)
Cape White-eye ⁴	<i>Zosterops pallidus</i>	41(3)	89(4)	130(7)
Thickbilled Weaver ^{2,4}	<i>Amblyospiza albifrons</i>	–	2	2
Forest Weaver ^{2,3,4}	<i>Ploceus bicolor</i>	–	3	3
Green Twinspot ^{3,4}	<i>Mandingoa nitidula</i>	2	1	3
Redcollared Widow ¹	<i>Euplectes ardens</i>	1	–	1
Bluebilled Firefinch ^{1,4}	<i>Lagonosticta rubricata</i>	–	2	2
Swee Waxbill ^{2,3,4}	<i>Estrilda melanotis</i>	–	4	4
Cape Canary ^{1,4}	<i>Serinus canicollis</i>	8	–	8
Forest Canary ^{2,3,4}	<i>Serinus scotops</i>	5	24	29
Total		233(22)	331(32)	564(54)

The ringing data presented here is a portion of a long-term study and is presented in response to similar ringing efforts and studies on forest bird species (Dowsett 1985; Brosset 1990; Yom-Tov *et al.* 1994; Dranzoa 1997). Ringing effort varied at each session (a session being regarded as a period when nets were fully open for no longer than a day). Ringing occurred opportunistically at all times of the day from dawn to dusk.

The data from non-forest sites is included in the study because it was expected that forest-ringed birds would be recaptured at these non-forest sites (pers. obs.). Non-forest utilizing species were therefore also ringed for this study.

2. Forest utilizing species

Bird species lists for these two forests were recorded at Hlabeni forest and Ngele forest from 1993–1997 (Hlabeni forest: January 1993–December 1997; Ngele forest: December 1994–December 1997) (Keast 1990; Symes *et al.* in press). In this study any bird seen utilizing forest in any way (feeding, breeding, socialising, etc.) was recorded as a forest utilizing species (Skead 1964; Clancey 1975; Cody 1983; Oatley 1989; Keast 1990;

D. Johnson pers. comm.; G. Castley pers. comm.).

RESULTS

1. Bird ringing

A total of 564 birds (233 at Hlabeni and 331 at Ngele) comprising 53 species were ringed (Table 2). This represents 46 (39.0%) (38 families) of 118 species (41 families) observed utilizing forest.

Forty-eight birds (8.4%) were recaptured within one month after initial ringing. Many of these were forest utilizing species (Table 3). Six birds were recaptured twice on separate occasions (Table 3). Twenty-two (66.7%) of 33 forest specific species observed were ringed (Table 2). Eighteen different species were recaptured (39.1% of total species caught), of which ten (55.6%) were forest specific species (Table 2).

Capture rates are summarized in Table 4. The capture rates of the two forest sites were compared and did not differ significantly (RM ANOVA; $F(1,27) = 4.09$; $p = 0.0531$). Other sites were not compared because of floristic differences (pers. obs.).

Table 3. Recaptures more than one month after first ringing (* indicates forest specific species (Oatley 1989), * indicates recapture of same individual).

Species		Months elapsed since ringed
Terrestrial Bulbul	<i>Phyllastrephus terrestris</i>	1, 5
Sombre Bulbul	<i>Andropadus importunus</i>	1*, 12*
Orange Thrush ⁺	<i>Zoothera gurneyi</i>	8, 24
Chorister Robin ⁺	<i>Cossypha dichroa</i>	1, 25
Cape Robin	<i>Cossypha caffra</i>	20, 20, 25
Starred Robin ⁺	<i>Pogonochila stellata</i>	9, 12
Barratt's Warbler ⁺	<i>Bradypterus barrattii</i>	1*, 2*, 10**, 49**
Yellowthroated Warbler ⁺	<i>Seicercus ruficapillus</i>	16, 20
Barthroated Apalis ⁺	<i>Apalis thoracica</i>	1, 1, 1, 1, 2, 3*, 8, 10*
Greenbacked Warbler ⁺	<i>Camaroptera brachyura</i>	19, 23*, 39*
Cape Batis ⁺	<i>Batis capensis</i>	1, 2, 12, 19
Gurneys Sugarbird	<i>Promerops gurneyi</i>	1, 2, 2, 7, 20, 21
Malachite Sunbird	<i>Nectarinia famosa</i>	7
Lesser Doublecollared Sunbird ⁺	<i>Nectarinia chalybea</i>	1, 18
Greater Doublecollared Sunbird	<i>Nectarinia afra</i>	8
Black Sunbird	<i>Nectarinia amethystina</i>	23
Collared Sunbird ⁺	<i>Anthreptes collaris</i>	8, 25
Cape White-eye	<i>Zosterops pallidus</i>	9, 11*, 16, 16, 17, 17, 41*

2. Forest-utilizing species

A total of 118 bird species (108 at Hlabeni and 104 at Ngele) were observed utilizing forest habitat.

DISCUSSION

Selective ringing

Distribution of birds along a vertical gradient occurs with certain guilds foraging predominantly at certain strata within the forest (Koen 1988b; Brosset 1990). Although foraging height may vary within a species with foraging occurring closer to the ground when the undergrowth is better lit and at a higher level when the light is poor (Brosset 1990), usually under-storey avifauna differs from canopy avifauna (Loiselle 1990). Consequently mist-netting results may be irregular and selective (Brosset 1990) in relation to net positioning. In the present study netting in the forest was species selective. Species were captured at a net height of 0.5–2.0 m (height of nets in

study), with mid-canopy and canopy avifauna being excluded e.g. Grey Cuckooshrike *Coracina caesia* (Table 2). Furthermore, because of the mesh size used, certain larger species were less likely to be held securely in the net e.g. Cinnamon Dove *Aplopelia larvata*.

Rare species were also captured infrequently. Karr (1990) captured over 90% of local species in a deciduous forest using mistnets. From 1972 to 1982, 33 forest bird species (2030 individual birds) were ringed on the Nyika Plateau, Malawi/Zambia (Dowsett 1985). By comparison, in this study 46 species (39.0%) of forest utilizing birds were caught (Table 2). Different size nets at all levels within the forest would therefore be required to sample a higher proportion of the species occurring in these forests. The high proportion of forest specific species ringed (66.7%) suggests that many of them rely on the under-storey in the forest. The presence of certain non-forest utilizing species in the list (Table 2) is a result of netting outside of the forest.

Table 4. Capture rates at respective ringing sites (birds caught per hour per 100 m net).

Ringling site	n (ringing sessions)	Birds caught per hour/100 m net (mean \pm s.e.)
Hlabeni forest	28	1.97 \pm 0.28
Hlabeni mountain (near stream)	5	2.23 \pm 0.90
Hlabeni <i>Protea</i> patch	16	4.73 \pm 0.72
Ngele forest	28	2.66 \pm 0.28
Mackton Lodge	15	8.08 \pm 3.50
SAFCOL Offices	11	6.78 \pm 0.87

Capture rate

The capture rate was slow (Table 4), suggesting that forest birds active in the lower strata of these forests were able to detect and avoid nets effectively, or did not cover wide ranges in the forests. At the non-forest sites the higher capture rates suggest higher activity patterns for alternative habitats. In Ghana, composition and relative abundance in mist-net captures varied depending on net height, with the highest catch recorded in the third shelf (Ntiamao-Baidu *et al.* 2000a).

The recapture rate of 8.4% after 57 months suggests that future results will yield valuable longevity data for forest specific species. Such data is scarce for many of the species captured in the study. In Ziika forest, Uganda, a 15.6% recapture rate five years later with 26% of species captured being recovered suggests higher annual survival rates than was expected for tropical birds (Dranzoa 1997). Recaptures in Nyika suggest longevity of more than 11 years for forest birds similar to those of this study (Dowsett 1985).

Species presence data

Nine and six species in Atewa Range Forest Reserve and Tano-Offin Forest Reserve respectively, not recorded in spot counts were caught in mistnets (Ntiamao-Baidu *et al.* 2000a). Spot counts are the most comprehensive method of rapid assessment of forest bird species diversity, but a combination of methods is necessary for complete coverage

(Koen 1988b; Ntiamao-Baidu *et al.* 2000b). Mistnetting, therefore, cannot be used as a method to census birds. However, it can be used to supplement data. In this study the presence of specific cryptic and rare species was often recorded as a result of mistnetting e.g. Orange Thrush, Barratt's Warbler, and Green Twinspot.

Edge effects are pronounced in South African forests due to their small size in comparison to forests of the equatorial regions (Oatley 1989). Furthermore, their naturally fragmented nature creates distinct edge effects with grassland and afforested areas. As a result many non-forest species utilise forest edges (Skead 1964; Cody 1983; Koen 1988a; Koen 1992). Definitions and requirements of 'true forest species' also affect these interpretations with some authors less strict in their classification of forest species (Clancey 1975; Skead 1964). Species that use forest margins and other altered forest interior habitats are thus included as forest species (Skead 1964; Maclean 1993). Various southern African afro-montane forest avian community studies have included non-forest specific species (Winterbottom 1968, 1974; Clancey 1975; Cody 1983; Cooper 1985; Earlé 1983; Koen 1988a, b, 1992). Forest utilizing species were caught at non-forest sites and *vice versa* (Table 2). The recapture of predominantly forest specific species (55.6%) at the forest sites suggests high site fidelity for forest specific species.

Importance of forest

Although forest only covers 0.25% of the land surface of South Africa (Cooper 1985) a total of 41 species (approximately 6.5% of South Africa's total avifauna excluding predominantly marine species) are classified as true forest specific species (Oatley 1989). Such species are described as unable to survive in non-forest habitats (Oatley 1989). This represents a high habitat specificity: habitat area ratio. Skead (1964) includes 42 species as being '... birds of the forest proper ...' in the eastern Cape Province, South Africa. High levels of diversity and levels of endemism ranging from 3.4% to 40.0% (Stuart *et al.* 1993) in African Montane Forest Groups studied in east Africa correspond to refugia where forest would have survived during the driest periods of the Pleistocene (Diamond & Hamilton 1980; Deacon & Lancaster 1988). South African avian endemism is generally low (Pomeroy 1993), yet a high proportion (30.0%) of forest specific birds were recorded, of which 10 (30.3%) were southern African endemics or near endemics (Clancey 1975; Clancey 1986; Allan 1997). This high level of specificity for endemics suggests that forests may have in the past occupied a larger area than today. Since the last Glacial Maximum forest fragments would have formed forest refugia in which such isolation and speciation could have occurred (Lack 1971). Degrees of speciation would depend on periods of isolation (Mayr 1963; Lack 1971). No forest specific birds in this study belong to endemic families for the region, suggesting that periods of isolation may have not been long enough to warrant speciation to the ordinal level of family.

The maintenance of diversity of forest interior birds requires the preservation of large areas of forest (Askins *et al.* 1987). Forest area is the best predictor of density and species richness of forest interior birds, while forest isolation the best predictor for large forests (Askins *et al.* 1987). However, disturbed forest attracting generalists and excluding specialists may result in a distorted view of the importance of an area if diversity

is the criterion. The importance of long term monitoring programs in forests as part of management priorities in dwindling forests is thus highlighted (Dranzoa 1997).

ACKNOWLEDGEMENTS

The Department of Water Affairs & Forestry (DWAF) are thanked for their support in granting permission to work in forests under their jurisdiction, and for providing accommodation during field trips to Ngele forest. Craig Breedt (DWAF) is thanked for his help during this study. The Arnold and Everett families of Creighton are thanked for their support and hospitality over the years of this study.

REFERENCES

- Allan, D. 1997. Birding in southern Kwa-Zulu-Natal. Margate: Hibiscus Coast & Country Publicity Association.
- Askins, R.A., Philbrick, M.J. & Sugeno, D.S. 1987. Relationships between the regional abundance of forest and the composition of forest bird communities. *Biol. Conserv.* 39(2): 129–152.
- Brosset, A. 1990. A long term study of the rain forest birds in M'Passa (Gabon). In: Keast, A. (ed.). *Biogeography and ecology of forest bird communities*. The Hague: SPB Academic Publishing. pp. 259–274.
- Clancey, P.A. 1975. On the endemic birds of the montane evergreen forest biome of the Transvaal. *Durban Mus. Novit.* 10(12): 151–180.
- Clancey, P.A. 1986. Endemicity in the southern African avifauna. *Durban Mus. Novit.* 13(20): 245–284.
- Cody, M.L. 1983. Bird diversity and density in South African forests. *Oecologia* 59: 201–215.
- Cooper, K.H. 1985. The conservation status of indigenous forests in Transvaal, Natal and O.F.S., South Africa. Durban: Wildlife Society of South Africa.
- Deacon, J. & Lancaster, N. 1988. Late quaternary palaeoenvironments of southern Africa. Oxford: Clarendon Press.

- Diamond, A.W. & Hamilton, A.C.** 1980. The distribution of forest passerine birds and Quaternary climatic change in tropical Africa. *J. Zool., Lond.* 191: 379–402.
- Dowsett, R.J.** 1985. Site-fidelity and survival rates of some montane forest birds in Malawi, south-central Africa. *Biotropica* 17(2): 145–154.
- Dranzoa, C.** 1997. The survival of understorey birds in the tropical rainforest of Ziika, Uganda. *Ostrich* 68(2–4): 68–71.
- Earlé, R.A.** 1983. Foraging overlap and morphological similarity among some insectivorous arboreal birds in an eastern Transvaal forest. *Ostrich* 54: 36–42.
- Fourcade, H.G.** 1889. Report on the Natal forests. Pietermaritzburg: Government Blue Book. p. 13.
- Karr, J.R.** 1990. Birds of tropical rainforest: comparative biogeography and ecology. In: Keast, A. (ed.). *Biogeography and ecology of forest bird communities*. The Hague: SPB Academic Publishing. pp. 215–228.
- Keast, A.** 1990. Introduction. In: Keast, A. (ed.). *Biogeography and ecology of forest birds*. The Hague: SPB Academic Publishing. pp. 1–6.
- King, N.L.** 1940. The Manubi forest. *J. S. Afr. For. Ass.* 4 (April): 24–29.
- Koen, J.H.** 1988a. A census technique for afro-montane forest bird communities. *S. Afr. For. J.* 145: 39–41.
- Koen, J.H.** 1988b. Stratal distribution and resource partitioning of birds in the Knysna forest. *Afr. J. Ecol.* 26: 229–238.
- Koen, J.H.** 1992. Medium-term fluctuations of birds and their potential food resources in the Knysna forest. *Ostrich* 63: 21–30.
- Lack, D.** 1971. *Ecological isolation in birds*. Oxford: Blackwell.
- Loiselle, B.A.** 1990. Bird abundance and seasonality in a Costa Rican Lowland forest canopy. *Condor* 90: 761–772.
- Maclean, G.L.** 1993. *Roberts' birds of southern Africa*. Cape Town: John Voelcker Bird Book Fund.
- Mayr, E.** 1963. *Animal species and evolution*. Cambridge, Massachusetts: Harvard University Press.
- McCracken, D.P.** 1987. Qudeni: the early commercial exploitation of an indigenous forest. *S. Afr. For. J.* 142 (September): 71–80.
- Midgeley, J.J., Cowling, R.M., Seydack, A.H.W. & Van Wyk, G.F.** 1997. Forest. In: Cowling, R.M., Richardson, D.M. & Pierce, S.M. (eds). *Vegetation of southern Africa*. Cambridge: Cambridge University Press.
- Moll, E.J.** 1972. The current status of mist-belt mixed *Podocarpus* forest in Natal. *Bothalia* 10(4): 595–598.
- Ntiamoa-Baidu, Y., Asamoah, S., Owusu, E.H. & Owusu-Boateng, K.** 2000a. Avifauna of two upland forest reserves, the Atewa range and Tano-Offin, in Ghana. *Ostrich* 71(1&2): 277–281.
- Ntiamoa-Baidu, Y., Owusu, E.H., Asamoah, S. & Owusu-Boateng, K.** 2000b. Distribution and abundance of forest birds in Ghana. *Ostrich* 71(1&2): 262–268.
- Oatley, T.B.** 1989. Biogeography of the forest avifauna in South Africa. In: Geldenhuys, C.J. (ed.). *Biogeography of the mixed evergreen forests of southern Africa*. Occasional Report No. 45. Pretoria: Foundation for Research and Development, CSIR. pp. 48–59.
- Pomeroy, D.** 1993. Centers of high biodiversity in Africa. *Conserv. Biol.* 7(4): 901–907.
- Rycroft, H.B.** 1944. The Karkloof Forest, Natal. *J. S. Afr. For. Ass.* 11: 14–25.
- Skead, C.J.** 1964. Birds of the Amatole forests, King Williams' Town and Stutterheim, C.P. *Ostrich* 35(3): 142–159.
- Stuart, S.N., Jensen, P.F., Brogger-Jensen, S. & Miller, R.I.** 1993. The zoogeography of forest avifauna of eastern Tanzania. In: Lovett, J.C. & Wasser, S.K. (eds). *Biogeography and ecology of the rain forests of eastern Africa*. Cambridge: Cambridge University Press. pp. 203–228.
- Symes, C.T., Wirminghaus, J.O. & Downs, C.T.** in press. Diversity and seasonality of forest bird species in three South African afro-montane forests. *Ostrich*.
- Wager, V.A.** 1976. *Dwindling forests of the Natal coast*. Durban: Wildlife Society of Southern Africa, Natal Branch.

Winterbottom, J.M. 1968. Remarks on some forest avifaunas of southern Africa, with special reference to the south-west Cape. *Ostrich* 39: 146–149.

Winterbottom, J.M. 1974. The zoogeog-

raphy of the South African avifauna. *Ann. S. Afr. Mus.* 66: 109–149.

Yom-Tov, Y., McCleery, R. & Oatley, T. 1994. The survival rates of some southern African passerines. *Ostrich* 65: 329–332.

Notice:

Antarctic Tern *Sterna vittata*

¹Tony Tree, ¹Norbert Klages & ²Les Underhill

¹Port Elizabeth Museum & ²Avian Demography Unit

The Antarctic Tern is a regular winter visitor to South Africa. The first birds arrive in about March, and numbers build up to a peak in August. Departure takes place mainly in September and October, and is complete by November, with only isolated birds remaining in South Africa for the summer months. Regular roosts lie between Lamberts Bay and Cape Agulhas and between Cape St Francis and Bird Island, Algoa Bay. Beyond these areas it is a vagrant.

Prior to 1998, 249 Antarctic Terns had been ringed. These delivered five remarkable recoveries (see *Review of ring recoveries of waterbirds in southern Africa* by Underhill *et al.*, 1999).

Between July 1998 and September 2000, several expeditions to ring Antarctic Terns have been made to Bird Island, Algoa Bay. More than 1000 terns have been ringed, and colour leg flags were also fitted to 600 of

these birds. A request to look out for these birds was made in September 2000 to all researchers visiting Southern Ocean islands. Within three months there was an exciting response. Eric Woehler of the Australian Antarctic Division saw one of these leg-flagged birds between Christmas and New Year on Heard Island. This is at 53°S 73°E, in the southern Indian Ocean and 4300 km from Bird Island.

If you have access to a roost, please scan each bird for leg flags. If any sightings of these birds are made, report them to the South African Bird Ringing Unit. In fact, all sightings of Antarctic Terns, either at sea or at roosts, can usefully be reported to the ADU's Bird Sightings system.

For more information see the ADU webpage: www.uct.ac.za/depts/stats/adu under Seabirds; Antarctic Terns.

Papers: Bird Groups

Great Reed Warblers in south-east Botswana

Stephanie J. Tyler

Room 106, DAHP, Private Bag 0032, Gaborone, Botswana;
email: stephtyler@info.bw

INTRODUCTION

In Botswana Penry (1994) described the Great Reed Warbler *Acrocephalus arundinaceus* as a sparse to uncommon palaeartic migrant which was recorded only in the north and east during the drought period of the Botswana Atlas survey. Herremans (1997) showed a similar distribution in Botswana although the species occurs throughout much of southeastern South Africa.

In south-east Botswana Great Reed Warblers have mainly been recorded in *Typha* swamp at sewage lagoons and outflows from such lagoons, although there have also been records from along the Ngotwane River and the Limpopo River at Oliphants Drift. Further north at Francistown and Shashe they occur in *Phragmites* which forms fringes to dams and seasonal rivers as well as in *Typha* swamp as at Francistown sewage ponds.

This note reports on the biometrics, moult and arrival and departure times of Great Reed Warblers in south-east Botswana. Some comparisons are also made with other palaeartic warblers caught at Phakalane and with data on Great Reed Warblers from elsewhere in Botswana and in southern Africa.

STUDY AREA AND METHODS

At Phakalane sewage lagoons (24°34'S, 25°58'E), 15 km north of Gaborone (see Tyler & Tyler 1997a,b; Tyler 1998), Great Reed Warblers were mistnetted and ringed in the summer months from 1996/97 to 1999/2000. Mistnets were placed in and at the edge of *Typha* swamp, in fringes of *Typha* around

the lagoons and in adjacent tall herbs and *Acacia* scrub at three different sites within the 100 ha complex. On each visit to a site an average of 90 m (54 m to 120 m) of net was erected. A visit or ringing session typically lasted from about 1500 hrs until after dusk when nets were furled or from dawn to 0800–0900 hrs or later depending on the heat. Birds caught in the nets were ringed and weighed (to 0.1 g); wing length (maximum chord) was measured to the nearest Imm. Net location and net height (i.e. shelf in which the bird was caught) were noted for each bird.

RESULTS

In the first summer (from 20 October to 20 April) 55 birds were caught, whereas in the subsequent summer less than half this number was caught despite more intensive ringing effort. Numbers were even lower the following two summers but ringing effort was much reduced in those seasons, especially in 1999/2000 (Table 1). In 1996/97 there was an apparent influx of birds in late January, when 21 new birds were caught on 27–28 January. Numbers of Great Reed Warblers were exceeded by those of one other palaeartic migrant, the Eurasian Sedge Warbler *A. schoenobaenus*, although Eurasian Reed Warblers *A. scirpaceus* were caught in very similar numbers to Great Reed Warblers.

First and last dates

The earliest bird was caught on 21 November. The last bird in 1996/97 was caught on 23 March, in 1997/98 on 8 March and in

Table 1. Numbers of Great Reed Warblers and other palaeartic *Acrocephalus* warblers caught in the summers of 1996/97 to 1999/2000. Numbers in parentheses refer to additional birds that were re-trapped from a previous year. (Except for one European Reed Warbler first caught in 1996/97 and re-trapped in 1998/9, no birds were re-trapped two years after ringing).

	1996/97	1997/98	1998/99	1999/2000	Totals (new birds)
<i>A. arundinaceus</i>	55	23 (3)	11 (1)	2	91
<i>A. scirpaceus</i>	53	24 (5)	25 (2)	2	104
<i>A. palustris</i>	4	3	0	1	8
<i>A. schoenobaenus</i>	216	178 (9)	43 (6)	15	452
<i>A. griseldis</i>	1	0	0	0	1
Number of sessions	30	40	23	5	98

1999/2000 on 31 March. One was seen on 6 April 2000 but none were caught during ringing sessions on 7 and 8 April. Great Reed Warblers departed earlier than other palaeartic *Acrocephalus* species (Table 2).

Site fidelity and *Ortstreue*

In 1996/97 13 (23.6%) of 55 Great Reed Warblers ringed in that season were re-trapped at the same site where they had been ringed. Of 25 ringed to the end of January, nine (36%)

were re-trapped during the two subsequent months. The maximum time between initial capture and re-trap dates was 48 days.

Three of the Great Reed Warblers trapped in 1996/97 birds were caught again in 1997/98 (a 5.4% return rate). European Reed Warblers showed a higher return rate with 9.4% of 53 birds caught in 1996/97 being re-trapped in 1997/98 but only one (4.1%) of 24 birds ringed in 1997/98 re-trapped the next season. One from 1996/97 was however, re-trapped after two years. Eurasian Sedge Warblers showed a low recapture rate (4.2%, 3.4%) in subsequent summers (see Table 1).

Table 2. First and last dates of four species of palaeartic migrant at Phakalane sewage lagoons.

	First date	Last date
<i>A. arundinaceus</i>	21 November	31 March
<i>A. scirpaceus</i>	2 November	10 April
<i>A. palustris</i>	31 December	10 April
<i>A. schoenobaenus</i>	29 October	20 April

Table 3. Proportion of birds caught in nets within *Typha* swamp and in edge habitats.

	<i>Typha</i> swamp	Edge habitats
<i>A. arundinaceus</i>	53	47
<i>A. scirpaceus</i>	34	66
<i>A. schoenobaenus</i>	40	60

Habitat use

Birds were caught in both *Typha* swamp and in the tall herbs and *Acacia* savanna bordering the lagoons. Of a sample of 73 Great Reed Warblers (new birds plus retraps), 39 were caught in nets within *Typha* compared with 34 in drier habitats. Three quarters (75.4%) of the birds caught were in the top two shelves of the nets.

Primary moult

The only Great Reed Warbler caught in November had old primary feathers. In December birds were caught with both old and fresh plumage as well as in active (early to mid) moult. Of 47 birds caught in January almost half were in active moult and 25 had com-

Table 4. Numbers of Great Reed Warblers ($n = 78$) caught between November and March from 1996/97 to 1999/2000 at Phakalane sewage lagoons with old primaries or in active moult (early moult = moult score 1–15; mid moult = score 16–30; late moult = score of 31–44) or with fresh plumage. Re-traps from previous years are included.

	November	December	January	February	March
Old	1		3		
Early moult		1	4	1	
Mid moult		2	5		
Late moult			10	4	2
Fresh	1	25	21	16	

pleted moult (Table 4). One bird was in the early stage of primary moult in February and two birds had yet to complete moult in mid March.

Clearly some birds arrived in Botswana having already completed primary moult but many moulted their primary feathers whilst in Botswana.

Nine birds caught during primary moult were subsequently re-trapped in the same season, but there were widely varying rates of moult progression (Table 5). Assuming a steady rate of growth of primary feathers, primary moult could take from 45 to 425 days, although obviously the latter is much too long.

Biometrics

Wing lengths of 72 Great Reed Warblers caught at Phakalane ranged from 87–103 mm, with a mean of 94.7 mm (SD 3.8). Weight ranged from 21.1 to 38.1 g ($n = 76$) with a mean weight of 30.2 g. (SD 2.7). Birds were

not sexed. No significant difference was found in the mean weights in March and those in earlier months, although the two heaviest birds (36.6 g and 38.1 g) were caught in March.

DISCUSSION

Great Reed Warblers (and Eurasian Reed Warblers) were much less frequently caught than European Sedge Warblers. European Marsh Warbler *A. palustris* was the least commonly caught palaeartic species apart from Basra Reed Warbler *A. griseldis* of which only one was caught (Tyler *et al.* 1997). This contrasts with the situation further north at Nchalo in Malawi (Hanmer 1979), where Great Reed Warblers were the most numerous migrant.

The catch of Great Reed Warblers in 1997/98 was less than half that in the previous summer despite greater ringing effort in the second year. Higher rainfall in 1996/97 might explain the difference. Raijmakers & Raijmakers (1994) also found that in drier areas,

Table 5. Moult progression as shown by moult scores of nine birds caught twice in a season.

First score	4	39	39	2	41	26	44	26	41
Second score	16	45	45	11	43	28	45	38	45
Number of days elapsed	9	26	29	16	8	17	8	8	18
Difference in moult score	8	(6)	(6)	9	2	2	(1)	12	(4)
Number of days taken for an increase in moult score by one	1.1			1.8	4	8.5		0.7	

numbers varied greatly between years.

Great Reed Warblers were present at Phakalane mainly from December to March as found by Penry (1994) with my earliest and latest dates (21 November to 31 March) both being earlier than those recorded in the Raijmakers & Raijmakers' (1994) 'southern Transvaal' study, i.e. several sites between Secunda and Vanderbijlpark, now in Mpumalanga and Gauteng (5 December to 4 April). However, I did have a sight record on 6 April 2000 but no birds were caught during ringing sessions on 7 and 8 April. Dave Philip and Nicky Bousfield caught no Great Reed Warblers during November at Francistown and Selebi Phikwe, their earliest bird being on 11 December. Their latest however, was on 15 April. Further north in Malawi, Hanmer (1979) recorded Great Reed Warblers between 25 November and 16 April. Penry (1994) referred to birds usually arriving in mid-October, his earliest date being 26 September, but Herremans (1997) suggested treating such early dates with caution. Herremans (1994) gave the median arrival date as 1 December ($n = 11$) with earliest and latest dates being 9 October and 11 April respectively.

Site fidelity in the Great Reed Warbler has been well-documented (Hanmer 1989a; Urban *et al.* 1997). Although birds were faithful to sites at Phakalane within a season, site

fidelity in the subsequent season (*Ortstreue*) was rather low (5.4%). Raijmakers & Raijmakers (1994) only retrapped one bird in a subsequent season in their study area between Secunda and Vanderbijlpark. *Ortstreue* is higher in more mesic areas (e.g. Manson 1985; Hanmer 1986, 1989b). Hanmer (1989b) also demonstrated the species' longevity by re-trapping three birds from seven to nine years after they had been ringed.

Wing lengths of Great Reed Warblers at Phakalane were very similar to those found in other studies in Europe and Africa (Table 6).

Weights of Phakalane Great Reed Warblers were also very similar to those found in other studies (Table 7). Hanmer (1979) caught her heaviest birds in March. Raijmakers & Raijmakers (1994) found that weight increased by 3–4 g by March from a mean weight of 29.6 g in December and 30.5 g in January and February to a mean in March of 33.8 g.

There was much overlap in habitat used by Great Reed Warblers and other smaller palaearctic species, as well as the intra-African migrant African Reed Warbler *Acrocephalus baeticatus* and the resident Lesser Swamp (Cape Reed) Warbler *A. gracilirostris*. The small species, European Sedge, European Reed and African Reed Warblers foraged extensively away from the *Typha* as did

Table 6. Wing lengths (mm) of Great Reed Warblers in eight study areas in Europe and Africa.

Reference	Country	Sample size	Range	Mean	S.D.
Williamson (1963)	Europe	39	87–104	95.6	2.74
Pearson & Backhurst (1988)	Kenya	100	89–103	96.4	
Manson (1985)	Zimbabwe	97	86–101	94.5	3.45
Raijmakers & Raijmakers (1994)	South Africa	42	91–101	95.5	2.94
K. Raijmakers & S. Raijmakers	South Africa	111	82–102	94.5	3.57
Urban, Fry & Keith (1997)	Africa	10 males 10 females	93–99 89–96	95.5 91.3	
This study	South-eastern Botswana	72	87–103	94.72	3.56
D. Philip & N. Bousfield	Eastern Botswana	112	90–108	96.7	3.1
Monadjem (2000)	Swaziland	5 females 2 males	89–93 103–104	91.6 103.5	

Table 7. Weight (g) of Great Reed Warblers in eight study areas in Europe and Africa.

Reference	Country	Sample size	Range	Mean	S.D.
Williamson (1963)	Europe	32	27–33	29.8	1.0
Hanmer (1979)	Malawi	266	24–38		
Pearson & Backhurst (1988)	Kenya	44	21.2–33.5	27.5	
Manson (1985)	Zimbabwe	100	23.5–38.8	29.6	2.6
Raijmakers & Raijmakers (1994)	South Africa	49	25–39	31.4	3.3
K. Raijmakers & S. Raijmakers	South Africa	109	19.8–39	29.9	3.54
This study	South-eastern Botswana	76	21.1–38.1	30.25	2.68
D. Philip & N. Bousfield	Eastern Botswana	95	24.7–35	29.64	2.43
Monadjem (2000)	Swaziland	7	25–32	28.9	

Great Reed Warblers although all were caught within the swamp as well. Great Reed Warblers were, however, caught mainly at the edges of the swamp and in adjacent scrub, as also noted by Herremans (1997), whereas the relatively large Lesser Swamp Warblers were caught, mainly within the *Typha* swamp. Tree (1971) found in the eastern Cape that Great Reed Warblers avoid *Typha* but this seemed not to be the case at Phakalane sewage ponds. Lesser Swamp Warblers, European Sedge and African Reed Warblers were also caught at lower levels in the net than the Great Reed Warblers. Loske & Lederer (1988) noted that Great Reed Warblers prefer higher vegetation types than European Sedge Warblers. In a brief study at Lake Naivasha in Kenya (Tyler 1991; Tyler *et al.* 1991) the abundant Lesser Swamp Warbler (65% of the total catch of *Acrocephalus* and *Bradypterus* warblers from January to March 1990) also occurred mainly within swamp vegetation close to the lake edge. Great Reed Warbler was a much less common species, and was caught in nets within the swamp vegetation and in a seasonally inundated zone with scrub further away from the lake. Capture heights were rather similar though for these two species at Naivasha, with both species occurring most commonly in the second shelf at less than 0.5 m above the ground.

Pearson (1975) suggested that many Great Reed Warblers reach southern Africa unmoulted in November and December, fol-

lowed in December and January by a fresh arrival of birds which have completed moult in the northern tropics. Data from Phakalane are not conclusive as so few birds were caught in the earlier part of the season, but tend to support Pearson's hypothesis. In the early summer one bird with worn plumage and several in early moult were netted. In January and February more than half the birds caught already had freshly moulted primaries. The rest were in moult or still with old feathers. Further north in eastern Botswana, at Francistown sewage ponds and at an industrial site at Selebi Phikwe, two birds with old plumage and two in very early stages of moult were caught in December (D.A. Philip & N. Bousfield pers. comm.). In January 14 birds were noted as having fresh wing feathers with four others half to three-quarters through moult, whilst 14 in February also had freshly moulted wings with six others nearly completing moult. A similar pattern to that found at Phakalane and Francistown was evident in the 'southern Transvaal' study of Raijmakers & Raijmakers (1994). They caught some birds in mid January that were only just starting moult, whereas birds caught at the beginning of January had almost completed moult. Data from my site are too few to show the duration of moult. Raijmakers & Raijmakers suggested that it might be about 55 days although Hanmer (1979) estimated the duration in three birds as 85, 87 and <96 days. The Phakalane data provide few data on moult progression (see Table 6).

ACKNOWLEDGEMENTS

The Office of the President and Gaborone City Council are gratefully acknowledged for, respectively, allowing me a research permit for a study of reed warblers in Botswana and for permission to carry out this study at Phakalane sewage ponds. I thank especially Lindsay Tyler for his great help at the sewage lagoons, and many other people who have also assisted with mistnetting there, notably Jerry Lewis, Steve Dodd and Phil Ireland. I am most grateful to Kobie & Shonie Rajmakers, Ara Monadjem, Dave Philip and Nicky Bousfield for making their data available to me and to Wendy and Remi Borello and Sharps Electrical (Pty) Ltd for providing me with steel ringing poles.

REFERENCES

- Hanmer, D.** 1979. A trapping study of Palaearctic passerines at Nchalo, southern Malawi. *Scopus* 3: 81–92.
- Hanmer, D.** 1986. Migrant Palaearctic passerines at Nchalo, Malawi. *Safring News* 15: 19–28.
- Hanmer, D.B.** 1989a. *Orstreue* demonstrated by migrants at Nchalo, Malawi. *Safring News* 18: 33–42.
- Hanmer, D.B.** 1989b. The end of an era – final longevity figures for Nchalo. *Safring News* 18: 19–30.
- Herremans, M.** 1994. Fifteen years of migrant phenology records in Botswana – a summary and prospects. *Babbler* 28: 47–68.
- Herremans, M.** 1997. Great Reed Warbler. In: Harrison, J.A., Allan, D.G., Underhill, L.G., Herremans, M., Tree, A.J., Parker, V. & Brown, C.J. (eds). *The atlas of southern African birds*. Vol. 2: Passerines. Johannesburg: BirdLife South Africa.
- Loske, K.-H. & Lederer, W.** 1988. Moulting, weight and biometrical data for some palaearctic passerine migrants in Zambia. *Ostrich* 59: 1–7.
- Manson, A.J.** 1985. Results of a ringing programme at Muruwati Farm, Mazowe. *Honeyguide* 31: 203–211.
- Monadjem, A.** 2000. Warblers ringed in Swaziland between 1994 and 1999. *Safring News* 29: 73–78.
- Pearson, D.J.** 1973. Moulting of some Palaearctic warblers wintering in Uganda. *Bird Study* 20: 24–36.
- Pearson, D.J.** 1975. The timing of complete moulting in the Great Reed Warbler *Acrocephalus arundinaceus*. *Ibis* 117: 506–509.
- Pearson, D.J. & Backhurst, G.** 1988. Characters and taxonomic position of Basra Reed Warbler. *British Birds* 81: 171–178.
- Penry, H.** 1994. *Bird atlas of Botswana*. Pietermaritzburg: University of Natal Press.
- Rajmakers, J.M.H. & Rajmakers, J.H.F.A.** 1994. Distribution, size and moulting of migrant warblers in the southern Transvaal. Part 1. *Safring News* 23: 65–71.
- Tree, A.J.** 1971. Notes on Palaearctic passerines in the eastern Cape. *Ostrich* 42: 198.
- Tyler, S.J.** 1991. *Birds of Lake Naivasha 2*. Foraging niches and relationships between migrant and resident warblers in papyrus swamp. *Scopus* 14: 117–124.
- Tyler, S.J.** 1998. A study of warblers in reed-swamp in southeast Botswana. In: Adams, N.J. & Slotow, R.H. (eds). *Proc. 22 Int. Orn. Congr.*, Durban. *Ostrich* 69: 336.
- Tyler, S.J. & Tyler, L.** 1997a. A year's ringing at Phakalane Sewage Lagoons in south east Botswana. *Safring News* 26: 81–83.
- Tyler, S.J. & Tyler, L.** 1997b. Observations on the seasonal presence and moulting of European Reed Warblers *Acrocephalus scirpaceus* at a site in southeast Botswana. *Ostrich* 68: 117–118.
- Tyler, S.J., Tyler, L. & Lewis, J.M.S.L.** 1991. *Birds of Lake Naivasha 1*. General studies. *Scopus* 14: 107–116.
- Tyler, S.J., Lewis, J.M.S. & Tyler, L.** 1997. First record of Basra Reed Warbler *Acrocephalus griseldis* in Botswana. *Ostrich* 68: 44–45.
- Urban, E.K., Fry, C.H. & Keith, S.** 1997. *The birds of Africa*. Vol. V. London: Academic Press.
- Williamson, K.** 1963. Identification for ringers 1. The genera *Cettia*, *Locustella*, *Acrocephalus* and *Hippolais*. *Tring*: British Trust for Ornithology.

Warblers ringed in Swaziland between 1994 and 1999

Ara Monadjem

Department of Biological Science, University of Swaziland, Private Bag 4, Kwaluseni, Swaziland; email: ara@science.uniswa.sz

Although the distribution of birds in Swaziland is now well known thanks to Vincent Parker's Herculean efforts (Parker 1994), little else has been published on the country's avifauna.

Commencing in 1993, I have annually ringed small numbers of birds in Swaziland. Most of my effort during this period was concentrated on ringing birds in reed beds, especially at Matsapha Dam (26°31'S, 31°18'E) in the heart of the country's industrial centre. At first glance the Matsapha Dam site is not a very promising ringing location. The dam, situated in the middleveld, is controlled by the Swaziland Electricity Board for power generation and therefore its water level fluctuates dramatically. Furthermore, owing to its location, the dam receives industrial and domestic waste from Matsapha industrial site. Recent studies by the University of Swaziland's Chemistry Department have concluded that the quality of water in the dam is highly unfit for human consumption. Despite this, Matsapha Dam supports a higher diversity and abundance of waterbirds than any other single site in the country. Verging the dam is a wide fringe of reeds (*Phragmites*), bulrushes (*Typha*) and a variety of sedges (Cyperaceae) providing habitat for numerous avian species, including reed warblers.

Mistnets were set in the south-eastern part of Matsapha Dam. The number of nets used increased with time from a single 9 m net on the first visit to two 12 m, one 9 m and two 6 m nets on the last visit. On most visits, though, one 9 m and two 12 m nets were employed. This area was only visited regularly between October and March in 1994–1995 to 1997–1998. The area was not visited in August or September. A total of 27 visits was made, of which 20 were between October and March, inclusive.

Additional data are presented from a brief one-day visit to Maphiva Dam (26°11'S, 31°57'E) in November 1999. The latter site is situated near Simunye in the lowveld of Swaziland.

This paper covers all species in the family Sylviidae including the genera *Cisticola* and *Prinia*.

SPECIES AND LONGEVITY

I have ringed a total of 14 species of sylviid warblers in reed beds at Matsapha and Maphiva Dams (Table 1). Of these species, all but the Garden Warbler have been captured and ringed at Matsapha Dam. Only three species were ringed in any significant numbers (>20 individuals). These are the African Marsh Warbler, Cape Reed Warbler and the African Sedge Warbler. Compared with other ringing studies in similar habitat (such as Hanmer 1989a, b; Raijmakers & Raijmakers 1994, 1995), my sample sizes are very small. This is predominantly due to the fact that very few nets were available to me.

Despite the small samples, I did recapture (after a minimum of six months from the date of first capture) four African Marsh Warblers, and single individuals of Cape Reed Warbler and Levaillant's *Cisticola*. African Sedge Warblers were, surprisingly, never recaptured. Of the four African Marsh Warblers, one was recaptured after 2 years 11 months, one after 3 years 11 months and one after 4 years 1 month, the latter spanning almost the entire length of this study. None of the other recaptures exceeded 12 months between first and last capture. To my knowledge, the oldest published records of longevity in the African Marsh and Cape Reed Warblers are from Malawi and are 8.5 and exceeding 10.5 years respectively (Hanmer

Table 1. Numbers of sylviid warblers and cisticolas ringed in reed beds at Matsapha and Maphiva Dams. Also presented are the numbers recaptured a minimum of six months after date of first capture (at Matsapha Dam only).

Species	Matsapha	Maphiva	Recaptured
Garden Warbler <i>Sylvia borin</i>	0	1	–
Great Reed Warbler <i>Acrocephalus arundinaceus</i>	7	0	0
African Marsh Warbler <i>Acrocephalus baeticatus</i>	43	4	4 (9.3%)
European Marsh Warbler <i>Acrocephalus palustris</i>	2	0	0
European Sedge Warbler <i>Acrocephalus schoenobaenus</i>	9	0	0
Cape Reed Warbler <i>Acrocephalus gracilirostris</i>	32	0	1 (3.1%)
Yellow Warbler <i>Chloropeta natalensis</i>	2	0	0
African Sedge Warbler <i>Bradypterus baboecala</i>	24	2	0
Willow Warbler <i>Phylloscopus trochilus</i>	2	0	0
Bleating Bush Warbler <i>Camaroptera brachyura</i>	1	0	0
Fantailed Cisticola <i>Cisticola juncidis</i>	2	0	0
Redfaced Cisticola <i>Cisticola erythropus</i>	2	1	0
Levaillant's Cisticola <i>Cisticola tinmiensis</i>	7	0	1 (14.3%)
Tawnyflanked Prinia <i>Prinia subflava</i>	7	1	0

1987). There is also a longevity record of African Marsh Warbler of at least 8.3 years from Namibia (Komen 1991). The oldest African Marsh Warbler recorded from the 'southern Transvaal' (i.e. several sites between Secunda and Vanderbijlpark, now in Mpumalanga and Gauteng) was 35 months (Raijmakers & Raijmakers 1995). The recapture rate of 9.3% for the African Marsh Warbler is slightly higher than the 6.9% reported for the 'southern Transvaal' but falls within the range of 9–11% reported for other species of *Acrocephalus* warblers ringed in large numbers in Malawi (Hanmer 1989b). Interestingly, only 5 out of 227 (2.2%) European Sedge Warblers ringed in Malawi were recaptured suggesting that this species either does not display site fidelity to the same degree as other *Acrocephalus* warblers, or that it becomes 'trap-shy' and avoids areas in which it has been captured.

Some species captured in this study are not traditionally associated with reed beds including the Garden Warbler, European Marsh Warbler, Willow Warbler, Bleating Bush Warbler and all the cisticolas and the prinia. Judging by the small numbers of the first four species captured, these birds were incidental in the study area. The Redfaced Cisticola, Levaillant's Cisticola and Tawnyflanked Prinia

were, however, commonly seen in rank grass at the edge of the reeds and probably made regular excursions into the reed beds.

SEASONALITY

The relative abundance (expressed as the rate of capture) of the species captured more than 5 times at Matsapha Dam are presented in Table 2. The two Palearctic migrants (European Sedge and Great Reed Warblers) were most abundant in summer, and earliest dates of capture for these two species were 28 November and 1 December, respectively. Of the breeding species, the African Marsh and Cape Reed Warblers, and Tawnyflanked Prinia were captured throughout the year. Relative abundance of the two warblers was, however, higher in spring and summer than in autumn or winter. The African Sedge Warbler was apparently not resident in the Matsapha Dam reed bed as it exhibited a clear summer peak in relative abundance and was never captured in winter. The lack of captures of Levaillant's Cisticola in summer and winter may indicate seasonal utilisation of the reed bed, or (more probably) may be an artefact of small sample size.

The African Marsh Warbler is an intra-African migrant, with a few individuals known

Table 2. Seasonal fluctuations in capture rates (relative abundance) of sylviid warblers in reed beds at Matsapha Dam. The values presented below are the number of individuals captured divided by the number of trapping sessions conducted in that season multiplied by 10 (i.e. the value reflects the number of birds that would have been trapped if 10 trapping sessions had been conducted in that season). This standardises the values and allows comparison between seasons. Spring: September–November; Summer: December–February; Autumn: March–May; Winter: June–August.

	Spring	Summer	Autumn	Winter
Number of trapping sessions	7	7	10	3
Great Reed Warbler	0	7	1	0
African Marsh Warbler	24	21	9	7
European Sedge Warbler	1	7	4	0
Cape Reed Warbler	16	17	6	1
African Sedge Warbler	7	16	8	0
Levaillant's Cisticola	4	0	5	0
Tawnyflanked Prinia	4	1	1	3

to overwinter in the 'southern Transvaal' and other parts of southern Africa. The situation in Swaziland, however, appears to be different as up to one third of the spring–summer population is present in winter (Table 2). Hence, significant numbers of African Marsh Warblers may be overwintering at Matsapha Dam. The 'disappearance' of the African Sedge Warbler from the study area in winter is surprising as it is suspected to be a resident in most parts of its southern African range (Maclean 1993). This could be due to the birds leaving the Matsapha Dam area in winter or due to a seasonal shift in habitat selected.

MOULT

The following species were not moulting any feathers when captured: Garden Warbler, Great Reed Warbler, Bleating Bush Warbler and Fantailed Cisticola.

African Marsh Warbler

Moult of head and body feathers was recorded in 17 different adult birds between October and April without a clear peak. Wing moult was, however, only recorded three times, once in late March, once in early April and once in November. In southern Africa, wing moult in this species has been recorded in April

(Komen 1988; Herremans 1992), but is most unlikely in November. The November bird could, therefore, be a case of mistaken identity. This bird, captured at Maphiva Dam, had a wing length of 57 mm, bill length of 13.0 mm and tarsal length of 22.0 mm. All primaries appeared new as did the first seven secondaries, while the remaining secondaries were either missing or old. The wing length of this bird is 3 mm shorter than the longest African Marsh Warbler measured in Swaziland. It is, however, likely that the third outermost (longest) primary was still growing, in which case the measured wing length is shorter than it would eventually be. This bird is most likely to have been either a European Marsh Warbler or European Reed Warbler *Acrocephalus scirpaceus* (the latter species representing a new record for Swaziland). Unfortunately, this bird was handled at a time when a large number of Redbilled Queleas *Quelea quelea* entered the nets creating general pandemonium, and was therefore not given the attention it deserved.

Cape Reed Warbler

Moult of head and body feathers was recorded in 13 adults and three juveniles between October and April, but mostly after November. Moult of wing feathers was

recorded three times in March, once in April and once in October. Hence, moult appears to commence after the breeding season from mid-March and continues into April and probably May. The bird moulting wing feathers in October was not mis-identified, but I do not have an explanation as to why it was moulting when it was.

African Sedge Warbler

Moult of head and body feathers was recorded in nine adults and one juvenile between late November and late April. Moult of wing feathers was recorded only twice, once in March and once in April.

Levaillant's Cisticola

Moult of head and body feathers was recorded in five adults between late November and late July. Moult of wing feathers was recorded once in March and once in April.

Tawnyflanked Prinia

Moult of head and body feathers was recorded in six adults between September and December, and in May. This species was not captured between January and April, but the single individual captured in July was not moulting any feathers. Moult of wing feathers was recorded in all the months in which head and body feathers were moulting. There appears, therefore, to be a large extent of overlap between breeding and moult in this species.

Other species

A single European Marsh Warbler was moulting head, body and wing feathers in March. None of the European Sedge Warblers were moulting wing feathers, although two were moulting head and body feathers in December. A single Yellow Warbler was moulting wing, head and body feathers in May. One Willow Warbler was moulting wing, head and body feathers in January, while another individual was moulting only head feathers in December. Finally, two

Redfaced Cisticolas were moulting wing, head and body feathers in April and May.

MENSURAL DATA

It has been noted that the size of some warbler species varies with respect to geographical location, and that site specific measurements may therefore be important (Tree 1999). The following measurements are presented in this light (Table 3). Mensural data is only presented for species in which more than five individuals have been measured. Wing length was measured according to the longest chord method. Notes on sexing (for Swaziland) are provided where my data sheds light on this topic. To avoid geographical bias I have only reported on measurements of birds captured at the Matsapha Dam.

Great Reed Warbler

Wing length of this species exhibited a bimodal pattern. Presumably, individuals with shorter wing lengths represent females. Judging from my data, it would appear that this species can easily be sexed on wing length alone, but this is probably an artifact of the small sample size.

African Marsh Warbler

Both mass and wing length were unimodally distributed, suggesting that these two features cannot be used to sex this species.

European Sedge Warbler

Mass was unimodally distributed in this species, but wing length appeared to fall within two discrete size classes. Whether this is biologically significant, or an artifact of my small samples needs to be determined.

Cape Reed Warbler

Male Cape Reed Warblers certainly have a longer wing length than females, and are possibly heavier as well (although there is a large amount of overlap in the latter measurement).

Table 3. Mensural data for birds captured at the Matsapha Dam, Swaziland. Mass and wing-length (longest chord method) data is for species of which more than five individuals have been measured.

Species	Sex	n	Mass (g)	Range (g)
Great Reed Warbler	unsexed	7	28.9	25–32
African Marsh Warbler	unsexed	43	9.7	7–14
European Sedge Warbler	unsexed	9	10.9	10–12
Cape Reed Warbler	unsexed	16	17.3	12–20
	possible males	10	19.7	16–21
	possible females	6	14.8	13–18
African Sedge Warbler	unsexed	24	12.9	10–17
Levaillant's Cisticola	unsexed	7	9.4	9–11
Tawnyflanked Prinia	unsexed	7	8.3	7–9

Species	Sex	n	Wing (mm)	Range (mm)
Great Reed Warbler	possible males	2	103.5	103–104
	possible females	5	91.6	89–93
African Marsh Warbler	unsexed	43	56.6	54–60
European Sedge Warbler	possible males?	7	66.1	65–68
	possible females?	2	61.5	61–62
Cape Reed Warbler	unsexed	16	67.4	64–69
	possible males	10	72.5	65–77
	possible females	6	64.8	64–69
African Sedge Warbler	unsexed	24	56.9	54–61
Levaillant's Cisticola	possible males	4	54.5	53–57
	possible females	3	49.0	49–50
Tawnyflanked Prinia	unsexed	7	49.4	46–54

It would appear as if birds with wing lengths of over 70 mm are male, but some of the individuals with wing lengths of less than 70 mm also appeared to be males.

African Sedge Warbler

Mass was unimodally distributed, but there was a suggestion that wing length was bimodal with a peak at 56 mm and another one at 59 mm. There is the possibility that birds with wing lengths greater than 58.0 mm are male while those with wing lengths shorter than 57.0 mm are female, but more data is needed in support of this idea.

Levaillant's Cisticola

Sample sizes are small but suggest that these birds may be sexed on wing length.

Tawnyflanked Prinia

Again, small sample sizes preclude the clear differentiation of the sexes, but there appeared to be two wing length size classes, one between 46 mm and 48 mm (possibly females) and the other between 50 mm and 53 mm (possibly males).

CONCLUSION

The main purpose of this article is to provide information on longevity, moult and measurements of sylviid warblers captured in reed beds in Swaziland. My sample sizes are generally very small which hampers both analysis and interpretation of the data. Much of the data presented here is similar to data from other regional studies. Interesting findings include longevity data for the African Marsh

Warbler, and site specific moult and mensural data (some of which may aid in sexing), and seasonal fluctuations in relative abundance.

ACKNOWLEDGEMENTS

Dr. Stephanie Tyler reviewed an earlier version of this paper.

REFERENCES

- Hanmer, D.B.** 1987. Getting older in Malawi. *Safring News* 16: 73–78.
- Hanmer, D.B.** 1989a. The end of an era – final longevity figures for Nchalo. *Safring News* 18: 19–30.
- Hanmer, D.B.** 1989b. *Orstreue* demonstrated by migrants at Nchalo, Malawi. *Safring News* 18: 33–42.
- Herremans, M.** 1992. New records of the European Reed Warbler *Acrocephalus scipaceus* from Botswana. *Babbler* 24: 10–13.
- Komen, J.** 1988. Identity crisis: African Marsh, European Reed and European Marsh Warblers. *Bokmakierie* 40: 106–110.
- Komen, J.** 1991. African Marsh Warbler longevity record. *Lanioturmus* 26: 22–23.
- Maclean, G.L.** 1993. Roberts' birds of southern Africa. Cape Town: John Voelcker Bird Book Fund.
- Parker, V.** 1994. Swaziland bird atlas 1985–1991. Mbabane: Websters.
- Raijmakers, J.M.H. & Raijmakers, J.H.F.A.** 1994. Distribution, size and moult of migrant warblers in the southern Transvaal, part one. *Safring News* 23: 65–71.
- Raijmakers, J.M.H. & Raijmakers, J.H.F.A.** 1995. Distribution, size and moult of migrant warblers in the southern Transvaal, part two. *Safring News* 24: 3–12.
- Tree, A.J.** 1999. Hints on ageing and sexing techniques for some reed-bed warblers. *Safring News* 28: 25–26.

A book for all seasons and all bird ringers

Southern Africa's classic travel guide, *Discovering Southern Africa* by T.V. Bulpin, is available once again, after having been out of print for six years. This sixth edition, published in April 2001 by Discovering Southern Africa Productions c.c. (Muizenberg), is the memorial edition, in honour of this respected scholar, indefatigable traveller, and master story-teller who died of cancer in October 1999, aged 81. Completed posthumously, it contains T.V. Bulpin's fullest account and most incisive observations of the subcontinent.

Presented in a larger format than previous editions (168 × 248 mm) and printed on Italian bible paper, it runs to 1088 pages in 50 chapters packed with information valuable to any bird ringer venturing into unfamiliar terrain. A detailed place-name index makes the content of the book easily accessible.

The volume encompasses South Africa, Namibia, Zimbabwe, Botswana, Lesotho, Swaziland and southern Mozambique and provides exhaustive coverage of roads and routes, climate, geology, geography, vegetation, flora and fauna, anthropology, history, folklore, towns and villages, and their sights and attractions. It does not focus on tourist hotspots alone; nature and biodiversity are savoured with profound insight, and with T.V. Bulpin's acute sensitivity to the power of Creation, which was at all times his credo.

The information contained in this meticulous chronicle of every nook and cranny of the subcontinent will ground the experiences of any ringer in knowledge and understanding of the areas he visits. The book's subject matter is as diverse as the myriad facets of the subcontinent itself, truly making it the bible of travel in southern Africa, as it has become known in the travel industry.

Distributed by Tafelberg Publishers, Cape Town, it is available from major bookshops at a recommended retail price of R295.

Possible Violet Widowfinch in Botswana?

Marc Herremans¹ & Wendy D. Borello²

¹Royal Museum for Central Africa, Tervuren, Belgium;

email: hmans@africamuseum.be

²PO Box 631, Gaborone, Botswana; email: borello@sharps.co.bw

Loon (1998) reported on the occurrence of a widowfinch associated with Brown Firefinches *Lagonosticta nitidula* in the interior of the Okavango Delta (northern Botswana), and tentatively identified it as a Violet Widowfinch *Vidua incognita/wilsoni*; also because the bird fitted the pale bill/red leg morphology attributed to that species in its original description (i.e. Nicolai 1972: type from unknown locality in Angola, paratype from Katanga). Loon (1998) caught a single adult in a mistnet on 29/07/1997, which during a four week period yielded four times more Brown Firefinches than Redbilled Firefinches *L. senegalensis* (24 to 6).

While we have no problem with the generally cautious tone of Loon's comprehensive note on the existence and taxonomic mystery that the Violet Widowfinch still poses, and on the need for further study of the widowfinches in the Okavango, we would like to comment on the tentative evidence proposed for the occurrence of this taxon in Botswana.

Brown Firefinches are generally more common in the riparian vegetation in the Okavango Delta than Redbilled Firefinches. Thus, any widowfinch in this habitat is statistically more likely to be found 'associated' at some stage with the former. The widowfinch was caught at the end of July, which is after the breeding season of firefinches in the region (Harrison *et al.* 1997). It was an adult female or non-breeding male, and no male bird in breeding plumage was recorded, let alone one defending a territory with the appropriate Brown Firefinch song imitation. Outside the breeding season, seed-eating passerines tend to flock to suitable patches of food, which are frequented by several species of firefinches, waxbills, widowfinches and

canaries, sometimes in mixed flocks. Such opportunistic associations are not necessarily enlightening for the breeding ecology of the species.

Brewster (1989) reported on widowfinches near Gumare (western Okavango), and found that all had pale bill/pink legs, imitated Redbilled Firefinches (except for one unidentified), and were therefore Steelblue Widowfinches *Vidua chalybeata*. Traylor (1965) collected three males in breeding plumage with pale bill/pink legs at Sepupa and Nokaneng (western Okavango); he considered them to be Steelblue Widowfinches (however, the Violet Widowfinch had not yet been described). Near Maun, pink-billed Steelblue Widowfinches predominate, but pale-billed also occur (Brewster 1988; Payne 1996; pers. obs.). Similarly, near Livingstone (Zambia) Steelblue Widowfinches with pale and pink bill coloration co-occur (Stjernstedt 1998). The pale-billed birds (*centralis*) generally have a northerly range in Africa, though they occupy the western regions at the edge of their range in southern Africa, from the Okavango northwards to Uganda, while pink-billed birds (*amauropteryx*) occur more to the east and south in southern Africa (Payne 1996; Stjernstedt 1998).

A few widowfinches imitating Brown Firefinches have been found in Zambia and Zimbabwe (Stjernstedt 1998); but these had pink bills (Stjernstedt *in litt.*) and do therefore not fit the original species concept of the Violet Widowfinch (Payne 1996). One of the possible explanations is that these are the result of an incidental host switch (Stjernstedt 1998) by Steelblue Widowfinches. Apparent incidental switches have also been reported in

the Green Widowfinch *V. codringtoni* (Payne *et al.* 1992).

In conclusion, we do not want to dismiss the possible occurrence of the Violet Widowfinch or another parasite of the Brown Firefinch in Botswana, neither do we dismiss the need for further study of the widowfinches in the Okavango. However, we find the evidence presented by Loon (1998) too weak, even for a tentative identification of the birds as Violet Widowfinches. In the light of existing knowledge Loon's description fits the pale-billed form of Steelblue Widowfinch acceptably well.

REFERENCES

- Brewster, C.** 1988. Birding along the Thamalakane and Boteti Rivers. *Babbler* 15: 26–28.
- Brewster, C.** 1989. Observations of widowfinches in Ngamiland. *Babbler* 17: 34–35.
- Harrison, J.A., Allan, D.G., Underhill, L.G., Herremans, M., Tree, A.J., Parker, V. & Brown, C.J.** 1997. The atlas of southern African birds. Johannesburg: BirdLife South Africa.
- Loon, R.** 1998. Possible brood parasite of the Brown Firefinch from Jedibe, Botswana. *Safring News* 27: 3–5.
- Nicolai, J.** 1972. Zwei neue *Hypochoera*-Arten aus West-Afrika (Ploceidae, Viduinae). *Journal für Ornithologie* 113: 229–240.
- Payne, R.B.** 1996. Field identification of the Indigobirds. *Bulletin of the African Bird Club* 3: 14–25.
- Payne, R.B., Payne, L.L. & Nhlane, M.E.D.** 1992. Song mimicry and species status of the Green Widowfinch *Vidua codringtoni*. *Ostrich* 63: 86–97.
- Stjernstedt, R.S.** 1998. Brown Firefinch Indigobird near Livingstone. *Zambia Bird Report* 1997: 51.
- Traylor, M.A.** 1965. A collection of birds from Barotseland and Bechuanaland. *Ibis* 107: 357–384.

This table is a summary compiled from Maclean 1993 (*Roberts' birds of southern Africa*, Cape Town: John Voelcker Bird Books) and Payne 1996 (see above) for easy reference. *Ed.*

Vidua species of southern and central Africa

<i>Vidua</i> (Widowfinch)	Host	Bill	Legs
<i>V. chalybeata</i> Steelblue	<i>Lagonosticta senegala</i> Redbilled Firefinch	Red	Red
<i>V. purpurascens</i> Purple	<i>L. rhodopareia</i> Jameson's Firefinch	Whitish	Whitish
<i>V. funerea</i> Black	<i>L. rubricata</i> Bluebilled Firefinch	White	Red
<i>V. codringtoni</i> Green/Twinspace	<i>Hypargos niveoguttatus</i> Redthroated Twinspace	White	Red
<i>V. wilsoni</i> Violet	<i>L. nitidula</i> Brown Firefinch	White	Pinkish

Ringling Lesser Kestrels in the Karoo

John Moorcroft

46 7th Avenue, Walmer 6065, Port Elizabeth;
email: eplameat@intekom.co.za

Ever since I was a young child I have been fascinated with Lesser Kestrels *Falco naumanni* as they came to roost in a huge Eucalyptus tree in my grandmother's garden in Cradock every summer. When I started ringling raptors in 1989 I tried on numerous occasions to capture these elusive creatures using Bal-chatri traps baited with white mice. Only three Lesser Kestrels were captured using this method. I can only presume that on these occasions the kestrels were attracted to the prey in the trap because there was a scarcity of other food.

During December 1999 I lit upon the idea of trying to catch the birds with mistnets when they enter their roosts at night. After investigating various materials for the poles I decided that glass fiber windsurfer masts would be most suitable for suspending the nets above the ground. They are extremely light, strong, durable and not too flexible. As I was not able to obtain enough windsurfer masts I used aluminium poles as well. The aluminium and glass fibre poles were joined using specially turned wood sections. A collar in the middle prevented the joiners from slipping into the poles. A T-piece was placed atop the uppermost pole and these were connected to each other with a rope the length of a 12 m mistnet. Two guy ropes were attached to the outer sides of each T-piece, which served as anchors to keep the poles vertical and to keep them exactly the required distance apart. Also attached to each T-piece was a small pulley, through which a thin cord passed to hoist the net up and down. The poles were painted black and the guy ropes were dyed black. The 2.4 m high net was attached to a 2.5 m length of aluminium 19 mm in diameter. The net was strained to the poles by the nylon rope to keep it in position.

I left Port Elizabeth on 15 February 2000 and headed towards Vosburg trapping perch-hunting raptors with Bal-chatri traps. Gillian Murray from Zimbabwe and Ivan, a recent graduate who was on an extended vacation from Eger in Hungary, joined me. Ivan is involved in raptor conservation, especially in the protection of Saker Falcons and Imperial Eagles in eastern Hungary. It was a huge asset to have such a knowledgeable scientist along on the trip.

We stopped at Pearston to investigate the roost site which is situated in pine trees in the grounds of a church in the main street. It did not appear to be a suitable site for mistnetting as the trees seemed too high and there was a fence in the way. Many Lesser Kestrels were seen on the outskirts of Pearston and towards Graaff-Reinet and beyond. Larger numbers of Lesser Kestrels were seen near Hutchison and Victoria West. We investigated one of the roost sites in Victoria West before heading to a farm between Carnarvon and Vosburg for the night. Mark Anderson told us that there were large roosts throughout the central Karoo. We dispensed with the idea of trapping any more raptors and headed towards Strydenburg. The Town Clerk was visited and the trapping technique was explained, as the poles would have to be placed in the street. The roost in Strydenburg is situated in Eucalyptus trees in the south-eastern eastern part of the town.

The rig used initially was 14.5 m high but it was decided to reduce it to 10 m as the poles appeared to be unstable at the top. There was a light wind blowing from the south and we feared it would blow the structure into the tree. The first breeze did in fact blow the net into the tree, creating a large hole in the net, but this was because the guy ropes had not been attached correctly to the T-pieces.

As dusk approached hundreds of Lesser Kestrels seemed to appear out of nowhere and later there were thousands. The roost appeared to number about 3000–5000 birds. We managed to trap three birds that night. The reasons for the poor success rate were mainly that the net was too low and that the shelves were too small. The height of the main tree was estimated at 22 m. It was nevertheless clear that the technique was successful and could be modified to trap many more birds.

Ronel Visagie, a ringer who farms in the district, and Stoffel Visagie joined us the following evening. Using an additional net supplied by Ronel we managed to increase the size of the shelves. With the extra net and the help of interested local people matters improved and five kestrels were caught. However, the net was still far too low as most of the birds were entering the tree at 15–20 m above the ground. It appears that the net must be placed at between 70% and 100% of the height of a tree to trap significant numbers of birds. It was for this reason that we headed for Victoria West where the roost trees were lower and where greater success could be achieved.

One of the four major roosts in Victoria West was at the hospital where an estimated 5000 birds roosted in six Eucalyptus trees. Other roosts in the town also contained large numbers of kestrels. The 10 m high net was placed between two of the highest trees. As dusk approached so did a thunderstorm. The net was raised into position and within a few seconds 11 kestrels were caught. Almost simultaneously the rain came down, drenching us and the birds to the skin. It was difficult enough to remove the kestrels' talons from the net without having the rain to contend with as well. The wet birds were placed in makeshift bags, which we transported to the guesthouse. The birds dried off overnight and were released early in the morning after being processed and ringed.

The following evening another nine kestrels were ringed in ones and twos. After spending another night in Victoria West we strapped the poles to the roof racks and

headed home after successfully ringing 28 kestrels.

Realizing that Lesser Kestrels could be successfully trapped using conventional mist-nets I purchased suitable poles, masts, nets and steel, etc. to make three individual rigs. Longer aluminium poles were used which made erection of the rigs much easier. A 12 m joined section of pipe can easily be lifted by one or two people and then raised by adding 1.5 m sections to the bottom to achieve any required height.

Another trip to Victoria West was undertaken on 10 March 2000 for two nights' ringing. Adri Barkhuizen and my son Guy, who at seven years is a very keen raptophile, accompanied me. David Pepler and Rob Martin from Stellenbosch University joined us in Victoria West. We arrived at the hospital at almost the same time and together we erected the poles and nets to trap the birds before the northerly migration. I was disappointed with the number of birds at the roost. There were not more than 25% of the number seen three weeks earlier.

David Pepler was very keen to get blood samples from the kestrels for DNA tests. He was not disappointed as we managed to catch 36 birds on the evening of 10 March 2000, one being a re-trap from three weeks before. This was most encouraging considering the number of birds at the roost. A further six kestrels were netted the following evening.

The greater trapping success was achieved by placing the nets higher and using more than one net. At this site three nets of different heights were used: 10 m, 12.5 m and 14.6 m. The poles were mixed and matched to attain the required height. Assistants are also very important in the erection of the poles and the extraction of the birds. For instance, the erection of three nets required the unrolling of more than 400 m of nylon rope.

Altogether 70 Lesser Kestrels were trapped and ringed between 16 February and 11 March 2000.

My thanks to Ivan and Gillian and the authorities in Strydenburg and the staff of the Victoria West Hospital who made all this possible.

Papers: Techniques

The Pierce Springtrap

Dale Forbes

*c/o Dr Colleen Downs, School of Botany & Zoology, Private Bag X01,
Scottsville 3209; email: capepolly@yahoo.com*

Last summer a few South African ringers met Andy Pierce, a visiting ringer from England. He brought only the bare essentials: one backpack filled with enthusiasm and another with experience (he wore his only pair of shorts and only shirt). It was out of one of those backpacks that a 'springtrap' appeared.

Simple in design (yet surprisingly difficult to describe), the springtrap operates by luring birds onto a meshed base in pursuit of some food (e.g. a mealworm, a cricket or a grape). Any jarring of the bait triggers the trap: a soft mesh cage is sprung over the bird (Figure 1). The initial trap was 270 × 270 mm and we

used it to catch Stonechats, Fiscal Shrikes and Cape Wagtails (amongst others). After some field use, we decided to make some more, slightly larger, traps. It was found that the new larger traps (350 × 350 mm) were better suited to catching larger species such as the Olive Thrush.

My main ringing interest is in forest birds. Forest ringing is notoriously slow. I decided to test this unusual little design. Early one autumn morning, after the nets were opened, I ran around placing 13 springtraps in strategic positions: under bushes, in open patches and below low branches. I found that the best

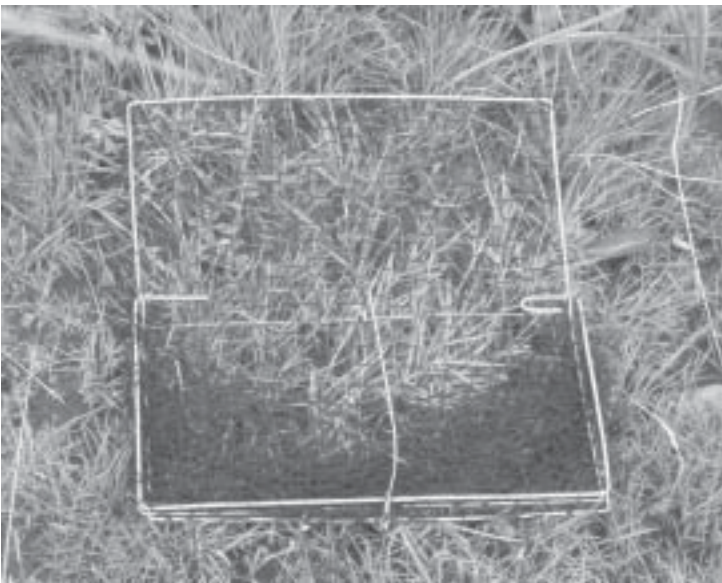


Fig. 1. One of Dale's traps ready for action. (Photo by H.D. Oschadleus.)

way to stimulate mealworm activity was by warming them up (in the mouth works well but then avoid talking as I suspect they may try to crawl down one's throat). After catching Cape, Chorister and Starred Robins, Olive and Orange Ground Thrushes, a Cape Batis and a Southern Boubou I was convinced that the traps were a good idea.

We have also tested the traps in a variety of other habitats. Baited with mealworms, the springtraps are likely to catch any insectivorous bird that feeds on the ground, especially drongos, shrikes, flycatchers, thrushes and robins. Dr Barry Taylor and his sons have also used the same design to catch forest birds as well as Mountain Chats, Buff-streaked Chats and even an Orangebreasted Rockjumper!

There does, however, appear to be an extremely low recapture rate when using springtraps. This is likely to be because the birds become trap-shy: they may associate a worm in a hair-clip with the trauma of ringing. However, at least more birds are being ringed, thus supplementing a mistnetting programme.

A word of caution: as with mistnets, ringers should be very careful with the position-

ing of the traps. Both ground and avian predators would be attracted to a trapped bird. I suspect that even an Olive Thrush would attack a trapped robin. The springtraps should thus be checked very frequently and one should avoid areas where mongooses and genets are common. Additionally, traps should be anchored as trapped birds have been known to bounce the traps about. It is especially important to anchor the traps if they are placed near a hazard such as a water body or on a ledge. The same springtrap design has apparently also been used to catch moorhens and other large birds (in much larger traps). Bigger traps would almost certainly need to be anchored.

Andy's passion for bird ringing taught me that ringing is not only an exercise of scientific data collection but it is also a sport of cunning and intuition; outsmarting all those target species out there.

ACKNOWLEDGEMENTS

I would like to thank Dr Colleen Downs for the guidance and support she has generously given me over the last few years.

Desktop publishing at the ADU

Your first choice for design and typesetting of academic materials:

● books and booklets ● journals ● reports ● manuals ● information sheets ● newsletters




Whether it is a book or a journal, we can help you to get it into print:

● editing ● proof-reading ● design ● layout and typesetting ● digital scanning ● liaison with printers ● assistance with self-publishing ● training in Adobe PageMaker software

The ADU's track record includes publications such as *The Atlas of Southern African Birds*. The ADU is part of the Department of Statistical Sciences at UCT.

We produce publications for customers locally as well as elsewhere in South Africa.

For quotes, contact:

 650-3846/3434/3227
 650-3434
 felicia@maths.uct.ac.za
 sunshine@maths.uct.ac.za

Reports

Wakkerstroom Ringing Training Course

H. Dieter Oschadleus

Avian Demography Unit, Department of Statistical Sciences, University of Cape Town, Rondebosch 7701; email: dieter@maths.uct.ac.za

During the first week of December 2000 the second national training workshop was held at the BirdLife Centre at Wakkerstroom. About 60 people attended. About half of the people were ringers and the other half were trainees. Some 1800 birds of about 100 species were ringed (Table 1). The structure of the course was similar to the course held at Witsand Nature Reserve (March 2000); in addition the theoretical aspects of bird-ringing were presented to the trainees over lunch times. These comprehensive lectures were based on the

newly produced Ringer's Manual.

Bird-ringing sites included the wetland where hundreds of Red Bishops *Euplectes orix* and various warbler species were captured. Ringers and trainees were introduced to the art of catching Cliff Swallows *Hirundo spilodera* at several bridge colonies. One method, requiring much coordination, involves dropping nets from the top of the larger bridges (Fig. 1). Dries Nel's technique involves putting a mistnet diagonally under the bridge colony where it is mostly shaded.



Fig 1. Dropping mistnets over the side of the Amersfoort bridge at Wakkerstroom to trap Cliff Swallows. (Photograph by H.D. Oschadleus.)

A highlight of the week for many ringers and trainees was the opportunity to ring in the remnant forest patches on nearby farms, where interesting species like Starred Robin *Pogonocichla stellata* and Bush Blackcap *Lioptilus nigricapillus* were handled. Spring-

traps were seen in abundance! (See article in this issue.) A similar course will be held at the same place and at about the same time in 2001: see page 100 of this issue for all the details.

Table 1. List and numbers of birds ringed in the Wakkerstroom area during the training course, 3–10 December 2000 (about 1% of data not available at time of going to press).

SAFRING no.	Species	No. ringed	SAFRING no.	Species	No. ringed
82	Bald Ibis <i>Geronticus calvus</i>	5	553	Olive Thrush <i>Turdus olivaceus</i>	17
84	Hadedea Ibis <i>Bostrychia hagedash</i>	1	569	Buffstreaked Chat <i>Oenanthe bifasciata</i>	1
130	Blackshouldered Kite <i>Elanus caeruleus</i>	1	575	Anteating Chat	
154	Steppe Buzzard <i>Buteo buteo</i>	2		<i>Myrmecocichla formicivora</i>	1
189	Common Quail <i>Coturnix coturnix</i>	4	578	Chorister Robin <i>Cossypha dichroa</i>	5
247	Wattled Plover <i>Vanellus senegallus</i>	1	581	Cape Robin <i>Cossypha caffra</i>	55
316	Cape Turtle Dove <i>Streptopelia capicola</i>	2	589	Starred Robin <i>Pogonocichla stellata</i>	26
317	Laughing Dove <i>Streptopelia senegalensis</i>	3	595	Garden Warbler <i>Sylvia borin</i>	1
322	Cinnamon Dove <i>Aplopelia larvata</i>	3	599	Willow Warbler <i>Phylloscopus trochilus</i>	10
343	Redchested Cuckoo <i>Cuculus solitarius</i>	1	604	Cape Reed Warbler	
344	Black Cuckoo <i>Cuculus clamosus</i>	2		<i>Acrocephalus gracilirostris</i>	13
367	Cape Eagle Owl <i>Bubo capensis</i>	2	606	African Marsh Warbler	
368	Spotted Eagle Owl <i>Bubo africanus</i>	4		<i>Acrocephalus baeticatus</i>	84
383	Whiterumped Swift <i>Apus caffer</i>	17	607	European Marsh Warbler	
385	Little Swift <i>Apus affinis</i>	2		<i>Acrocephalus palustris</i>	3
390	Speckled Mousebird <i>Colius striatus</i>	6	608	European Sedge Warbler	
397	Malachite Kingfisher <i>Alcedo cristata</i>	4		<i>Acrocephalus schoenobaenus</i>	2
431	Blackcollared Barbet <i>Lybius torquatus</i>	10	609	African Sedge Warbler	
443	Sharpbilled Honeyguide			<i>Bradypterus baboecala</i>	24
	<i>Prodotiscus regulus</i>	3	610	Barratt's Warbler <i>Bradypterus barratti</i>	7
450	Cardinal Woodpecker		618	Grassbird <i>Sphenoeacus afer</i>	1
	<i>Dendropicus fuscescens</i>	2	622	Barthroated Apalis <i>Apalis thoracica</i>	14
452	Olive Woodpecker		629	Fantailed Cisticola <i>Cisticola juncidis</i>	26
	<i>Mesopicos griseocephalus</i>	2	634	Ayres' Cisticola <i>Cisticola ayresii</i>	3
453	Redthroated Wryneck <i>Jynx ruficollis</i>	1	635	Palecrowned Cisticola	
474	Spikeheeled Lark			<i>Cisticola brunnescens</i>	9
	<i>Chersomanes albofasciata</i>	1	637	Neddicky Cisticola <i>fulvicapilla</i>	1
493	European Swallow <i>Hirundo rustica</i>	1	642	Rattling Cisticola <i>Cisticola chiniana</i>	1
495	Whitethroated Swallow		646	Levaillant's Cisticola <i>Cisticola tinninis</i>	13
	<i>Hirundo albigularis</i>	10	648	Lazy Cisticola <i>Cisticola aberrans</i>	3
502	Greater Striped Swallow <i>Hirundo cucullata</i>	5	1049	Drakensberg Prinia <i>Prinia hypoxantha</i>	8
504	South African Cliff Swallow		665	Fiscal Flycatcher <i>Sigelus silens</i>	2
	<i>Hirundo spilodera</i>	305	666	Yellow Warbler <i>Chloropeta natalensis</i>	3
510	Banded Martin <i>Riparia cincta</i>	4	671	Yellowthroated Warbler	
517	Forktailed Drongo <i>Dicrurus adsimilis</i>	2		<i>Phylloscopus ruficapillus</i>	7
521	Blackheaded Oriole <i>Oriolus larvatus</i>	1	672	Cape Batis <i>Batis capensis</i>	10
542	Bush Blackcap <i>Lioptilus nigricapillus</i>	20	682	Paradise Flycatcher <i>Terpsiphone viridis</i>	9
545	Blackeyed Bulbul <i>Pycnonotus barbatus</i>	27	692	Grassveld Pipit <i>Anthus cinnamomeus</i>	2
551	Sombre Bulbul <i>Andropadus importunus</i>	2	701	Yellowbreasted Pipit	
552	Kurriehane Thrush <i>Turdus libonyana</i>	1		<i>Hemimacronyx chloris</i>	3

Table 1 continued.

SAFRING no.	Species	No. ringed	SAFRING no.	Species	No. ringed
703	Orangethroated Longclaw <i>Macronyx capensis</i>	2	788	Yellowthroated Sparrow <i>Petronia superciliaris</i>	1
707	Fiscal Shrike <i>Lanius collaris</i>	12	799	Cape Weaver <i>Ploceus capensis</i>	43
709	Southern Boubou <i>Laniarius ferrugineus</i>	3	803	Masked Weaver <i>Ploceus velatus</i>	110
717	Olive Bush Shrike <i>Telophorus olivaceus</i>	1	805	Redbilled Quelea <i>Quelea quelea</i>	12
722	Bokmakierie <i>Telophorus zeylonus</i>	2	808	Red Bishop <i>Euplectes orix</i>	550
734	Indian Myna <i>Acridotheres tristis</i>	1	812	Golden Bishop <i>Euplectes afer</i>	19
735	Wattled Starling <i>Creatophora cinerea</i>	1	813	Redcollared Widow <i>Euplectes ardens</i>	11
736	Plumcoloured Starling <i>Cinnyricinclus leucogaster</i>	3	816	Redshouldered Widow <i>Euplectes axillaris</i>	18
746	Pied Starling <i>Spreo bicolor</i>	16	818	Longtailed Widow <i>Euplectes progne</i>	28
751	Malachite Sunbird <i>Nectarinia famosa</i>	2	833	Bluebilled Firefinch <i>Lagonosticta rubricata</i>	2
758	Greater Doublecollared Sunbird <i>Nectarinia afra</i>	8	843	Common Waxbill <i>Estrilda astrild</i>	23
760	Lesser Doublecollared Sunbird <i>Nectarinia chalybea</i>	9	846	Pintailed Whydah <i>Vidua macroura</i>	4
772	Black Sunbird <i>Nectarinia amethystina</i>	4	857	Cape Canary <i>Serinus canicollis</i>	8
775	Cape White-eye <i>Zosterops pallidus</i>	68	858	Forest Canary <i>Serinus scotops</i>	7
787	Southern Greyheaded Sparrow <i>Passer diffusus</i>	1	859	Yelloweyed Canary <i>Serinus mozambicus</i>	2
			874	Goldenbreasted Bunting <i>Emberiza flaviventris</i>	3

TALKS GIVEN AT THE WAKKERSTROOM WORKSHOP

Steven Piper - Welcome address

Andre Botha – Introduction to Wakkerstroom

Kobie Raijmaker – Identifying warblers

Keith Barnes – Taking blood samples

Barry Taylor – Trapping methods for flufftails and crakes

Christian Boix – Studying hornbills in Namibia

Keith Barnes – Important Bird Areas project

Dries Nel – Bald Ibis colour ringing project

Kobie Raijmaker – Recording moult in birds

Rihann Geyer – Identifying weavers, widows and bishops

Muchane Muchai – Trapping grassland birds

Kevin McCann – Crane ringing and projects

Steven Piper – Morphometrics of Longtailed Wagtails in different regions

Tribute to the *Treasure* ringers

H. Dieter Oschadleus¹, Les G. Underhill¹ & Anton C. Wolfaardt^{1,2}

¹*Avian Demography Unit, Department of Statistical Sciences, University of Cape Town, Rondebosch 7701; email: dieter@maths.uct.ac.za*

²*Western Cape Nature Conservation Board*

The sinking of the *Treasure* on 23 June 2000 resulted in an oil spill that affected about 40 000 African Penguins (Crawford *et al.* 2000). Thanks to the efforts of many ringers who responded to requests for help, about half of these penguins were ringed. As a result it will be possible to assess the impact of the spill on the penguins: to determine to what extent the birds which were oiled, cleaned and released have survived, moulted and bred and to compare this to the survival, moulting and breeding of the birds which were not oiled but were trucked to Port Elizabeth and released there to make their own way back to Robben and Dassen Islands.

RINGERS

Dieter Oschadleus, Les Underhill, Ross Wanless, Jan Hofmeyr, Gordon Scholtz and Bob Ellis helped to ring penguins at the Sea Point Aquarium where unoiled birds from Robben Island were kept before removal to Port Elizabeth. Les also took ringing teams to Dassen Island to ring about 1000 of the 13 500 unoiled penguins to be evacuated to Port Elizabeth.

Oiled penguins were housed and cared for at SANCCOB (Southern African Foundation for the Conservation of Coastal Birds) in Milnerton and at a warehouse in Salt River. Here the birds were ringed by four American biologists who had volunteered to help: Michelle Hester, Diana Humple, Josh Adams and Hannahrose Nevins (Fig. 1). They spent 10 days ringing cleaned penguins all day, every day! They were helped by Rosalind Jessop and Peter Collins from Australia, whom Rob Crawford had invited over. Toby Collett from England also helped. More local ringers joined in, including Philip Coetzee

while Peter Thornton and Murrie Slotar from Johannesburg flew to Cape Town at their own expense to help for a week. Many more people helped with the ringing including ADU staff like Doug Harebottle and René Navarro. There will be people who helped who are not listed here, as we were not present at all ringing sessions.

RINGS

At the time of the sinking of the *Treasure* there were only 3000 rings in stock at SAFRING and MCM (Marine and Coastal Management) had another 1000, and rings had to be obtained urgently. A local company, Schuurman Metal Pressings, was commissioned to manufacture penguin rings as it would take too long to obtain more rings from SAFRING's usual suppliers. After about two weeks the first batch of rings was ready. The rings were individually cut, sent to Johannesburg for the laser generated numbering, and sent to Bellville for tumbling (to smooth the edges). The rings were ready by the time the American biologists arrived and ringing could continue without interruption.

DATA CAPTURE

Mary Faragher and Rowan Dunne have helped with the enormous task of computerising the data.

RESIGHTINGS

The penguins have been monitored since the first birds were released. To give an indication of the value of the resighting data, the Dassen Island data for the period 12 July to

10 December 2000 is summarised here. During this period there were 3674 resightings of penguins.

Of the 13 500 oiled birds evacuated from Dassen Island to Cape Recife, Port Elizabeth, over the period 2–4 July, 1130 were banded. By 10 December 478 (42%) of these banded birds had been resighted on Dassen Island. The number of penguins recorded breeding since their return to the island was 205. One bird, released at Cape Recife on 4 July, was resighted on House Bay beach, Dassen Island, on 14 July. This fastest bird, S22061, was an *Apollo Sea* rehabilitee. Two birds, released at Cape Recife on 3 July, were also resighted on 14 July. Nine birds released on 4 July, and one bird released on 5 July, were resighted on 16 July.

Of 2744 oiled adults removed from Dassen Island for cleaning, 644 (24%) had been resighted by 10 December. The number of cleaned birds recorded breeding was 17 and 142 were recorded during moult. Of 772

oiled juveniles removed for cleaning, 191 (25%) had been resighted and 76 had been recorded during moult.

The first cleaned bird was recorded back on Dassen Island on 30 July 2000; at this stage we do not know the date of release from SANCCOB. Remarkably, there has only been this single recovery of a cleaned bird on Dassen Island during the period up to 10 December 2000.

REFERENCE

- Crawford, R.J.M., Davis, S.A., Harding, R.T., Jackson, L.F., Leshoro, T.M., Meyer, M.A., Randall, R.M., Underhill, L.G., Upfold, L., van Dalsen, A.P., Van der Merwe, E., Whittington, P.A., Williams, A.J. & Wolfaardt, A.C. 2000. Initial impact of the *Treasure* oil spill on seabirds off western South Africa. *S. Afr. J. mar. Sci.* 22: 157–176.



Fig. 1. The four American banders!

Report on the 1999–2000 ringing year

H. Dieter Oschadleus

*Avian Demography Unit, Department of Statistical Sciences,
University of Cape Town, Rondebosch 7701;
email: dieter@maths.uct.ac.za*

The period covered in this report is from 1 July 1999 to 30 June 2000. The ringing effort in southern Africa has decreased slightly, with a total of 65 981 birds ringed compared to 80 958 in the previous year (Table 1). The average number of ringed birds per ringer dropped from 604 in the 1998–1999 year to 426 in the 1999–2000 year and fewer quelea were ringed (as predicted in the previous report). The total consists of 57 726 free-flying birds and 8255 nestlings. The number of species ringed was 553. These figures are not absolutely accurate because they include schedules from earlier years and exclude schedules not submitted timeously, but this should not affect the totals very much.

As usual, the numbers of ringers per province/country, as well as the numbers of birds ringed per province/country, vary widely (Table 1). In the previous year there were three regions where there were no ringers and no birds were ringed; now there are three active ringers in the Northern Province, Zambia has submitted schedules for several years and is now up to date and in the Seychelles some seabirds were ringed.

The Marine and Coastal Management team heads the list for ringing the most birds (Table 2). The top individual ringer is Rick Nuttall. Top ringers of raptor nestlings and free-flying raptors are listed (Table 3).

The number of Redbilled Quelea ringed

Table 1. Geographical distribution of ringing effort in the 1999–2000 ringing year.

Province/ country	Number of ringers	Number of species ringed	Number of birds ringed	Average no. of birds per ringer
Western Cape	32	230	15 516	485
Gauteng	28	262	11 015	393
Free State	10	141	7102	710
Eastern Cape	15	171	6270	418
North West	9	190	5618	624
Namibia	13	199	4538	349
KwaZulu-Natal	18	207	4310	239
Botswana	6	127	2639	440
Mpumalanga	8	170	2322	290
Zambia	1	94	1927	1927
Northern Province	3	180	1796	599
Zimbabwe	5	157	1748	350
Northern Cape	3	29	448	149
Seychelles	1	4	438	438
Swaziland	1	39	155	155
Malawi	1	37	92	92
Antarctica	1	1	47	47
Totals	155	553	65 981	426

Table 2. Top 20 ringers or ringing groups in the 1999–2000 ringing year for ringers of all bird species.

Ringer	Province/ country	No. of birds ringed
Marine & Coastal Management	Western Cape	3058
Rick Nuttall	Free State	2790
Dries Nel	North West	2705
Frik Conradie	Free State	2517
Margaret McCall	Western Cape	2341
Bob Ellis	Western Cape	2312
Norbert Klages	Eastern Cape	2161
Pete Leonard	Zambia	1927
Gordon Scholtz	Western Cape	1887
David Johnson	KwaZulu-Natal	1636
Stephanie Tyler	Botswana	1445
Rita Marais	North West	1334
Rihann Geysler	Gauteng	1310
Gerrie Grobler	Northern Province	1150
Madeleen van Loggerenberg	Gauteng	1125
Willem de Klerk	Gauteng	1105
Kobie Raijmakers	Gauteng	1079
Dale Forbes	KwaZulu-Natal	1069
Dale Hanmer	Zimbabwe	1012
Herman & Zephné Bernitz	Mpumulanga	977

Table 3. Top ringers of raptors in the 1999–2000 year.

Ringer	Province/ country	No. of birds ringed
(a) nestlings		
Abrie Maritz	Northern Cape	121
Steve Dell	North West	55
Tim & Laurel Osborne	Namibia	43
Peter Bridgeford	Namibia	39
Anthony van Zyl	Western Cape	25
(b) free-flying raptors		
Abrie Maritz	Northern Cape	181
John Moorcroft	Eastern Cape	97
Francois Taljaard	Northern Cape	80
Herman & Zephné Bernitz	Mpumalanga	79
Manfred Schmitt	Gauteng	50

Table 4. The most frequently ringed birds for the 1999–2000 ringing year: terrestrial species.

Rank	Species	Total ringed	Previous rank
1	European Swallow <i>Hirundo rustica</i>	5973	2
2	Red Bishop <i>Euplectes orix</i>	5673	3
3	Masked Weaver <i>Ploceus velatus</i>	4644	4
4	Cape White-eye <i>Zosterops pallidus</i>	2888	5
5	Redbilled Quelea <i>Quelea quelea</i>	2531	1
6	Cape Weaver <i>Ploceus capensis</i>	1648	6
7	Laughing Dove <i>Streptopelia senegalensis</i>	1249	8
8	Cape Sparrow <i>Passer melanurus</i>	1089	10
9	Blue Waxbill <i>Uraeginthus angolensis</i>	1079	9
10	African Marsh Warbler <i>Acrocephalus baeticatus</i>	1010	7
11	Sociable Weaver <i>Philetairus socius</i>	931	13
12	Redheaded Finch <i>Amadina erythrocephala</i>	828	
13	Whitewinged Widow <i>Euplectes albonotatus</i>	662	17
14	Blackeyed Bulbul <i>Pycnonotus barbatus</i>	643	14
15	House Sparrow <i>Passer domesticus</i>	640	11
16	Common Waxbill <i>Estrilda astrild</i>	611	12
17	Cape Reed Warbler <i>Acrocephalus gracilirostris</i>	597	16
18	Olive Thrush <i>Turdus olivaceus</i>	597	18
19	Southern Greyheaded Sparrow <i>Passer diffusus</i>	561	19
20	Bronze Mannikin <i>Spermestes cucullatus</i>	524	

Table 5. The most frequently ringed birds for the 1999–2000 ringing year: seabirds.

Rank	Species	Total ringed
1	Cape Gannet <i>Morus capensis</i>	4074
2	African Penguin <i>Spheniscus demersus</i>	2427
3	Kelp Gull <i>Larus dominicanus</i>	782
4	Swift Tern <i>Sterna bergii</i>	566
5	Hartlaub's Gull <i>Larus hartlaubii</i>	404
6	Common Tern <i>Sterna hirundo</i>	402
7	Whitetailed Tropicbird <i>Phaethon lepturus</i>	364
8	Mediumbilled Prion <i>Pachyptila salvini</i>	305
9	Antarctic Tern <i>Sterna vittata</i>	253
10	Cape Cormorant <i>Phalacrocorax capensis</i>	120

dropped from 19 259 in the previous year to 2531 (Table 4), as a result of the lack of sponsorship of the Department of Agriculture. The next few species have moved up the ranks but there are no surprises.

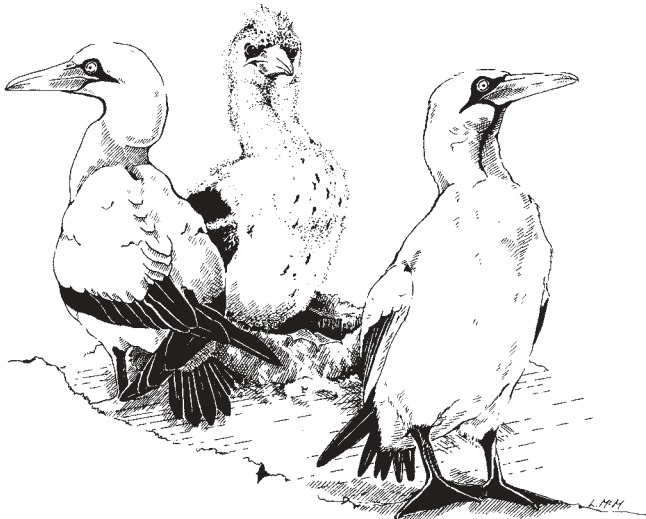
Cape Gannets and African Penguins are still at the top of the Seabirds list as in the previous year (Table 5). Free-flying and nestling raptors are listed (Table 6).

Table 6. The most frequently ringed birds for the 1999–2000 ringing year.

Rank	Species	Total ringed
Free-flying birds of prey		
1	Pale Chanting Goshawk <i>Melierax canorus</i>	319
2	Jackal Buzzard <i>Buteo rufofuscus</i>	84
3	Lesser Kestrel <i>Falco naumanni</i>	69
4	Rock Kestrel <i>Falco tinnunculus</i>	55
5	Blackshouldered Kite <i>Elanus caeruleus</i>	52
6	Greater Kestrel <i>Falco rupicoloides</i>	43
7	Steppe Buzzard <i>Buteo buteo</i>	42
8	Barn Owl <i>Tyto alba</i>	41
9	Spotted Eagle Owl <i>Bubo africanus</i>	35
10	Lanner Falcon <i>Falco biarmicus</i>	26

Birds of prey nestlings

1	Whitebacked Vulture <i>Gyps africanus</i>	131
2	Lappetfaced Vulture <i>Torgos tracheliotos</i>	53
3	Barn Owl <i>Tyto alba</i>	49
4	Pygmy Falcon <i>Polihierax semitorquatus</i>	31
5	Rock Kestrel <i>Falco tinnunculus</i>	28
6	Peregrine Falcon <i>Falco peregrinus</i>	21
7	Spotted Eagle Owl <i>Bubo africanus</i>	15
8	Lanner Falcon <i>Falco biarmicus</i>	14
9	Secretarybird <i>Sagittarius serpentarius</i>	12
10	Pale Chanting Goshawk <i>Melierax canorus</i>	11



Report on recoveries received at SAFRING: July 1999–June 2000

H. Dieter Oschadleus

Avian Demography Unit, Department of Statistical Sciences, University of Cape Town, Rondebosch 7701; email: dieter@maths.uct.ac.za

This report lists birds with foreign rings as well as interesting recoveries of birds ringed with SAFRING rings.

The format is similar to that of previous reports. The species common and scientific names are listed, followed by the numbers of recoveries and retraps reported for this ringing year. The first line of each listed recovery gives the ring number, bird's age at ringing, date of ringing, and place of ringing. South

African provinces are given in abbreviated form. The second line indicates the state of the bird (e.g. cause of death), date and place of the ring recovery, the elapsed time (to the nearest month) and distance between place of ringing and place of recovery.

Where a recovery has provided the greatest elapsed time or distance in the SAFRING databank, this is indicated in italics.

FOREIGN RECOVERIES AND NOTABLE LOCAL RECOVERIES

African Penguin *Spheniscus demersus* (14 recoveries, 32 retraps)

Z01172	Nestling	20/05/1979	St Croix Island, Algoa Bay		
	Resighted	30/05/2000	St Croix Island, Algoa Bay	21y 0m	0 km

Wandering Albatross *Diomedea exulans* (1, 2)

J09408	Nestling	30/09/1994	Gough Island		
	Dead	04/11/1999	At sea, W of Walvis Bay	5y 1m	2815 km

Yellownosed Albatross *Diomedea chlororhynchos* (1, 61)

847865	Nestling	07/03/1997	Gough Island		
	Longline	27/09/1999	Atlantic Ocean	2y 6m	2681 km

Darkmantled Sooty Albatross *Phoebastria fusca* (0, 2)

844490	Adult	06/10/1983	Gough Island		
	Resighted	21/09/1999	Gough Island	15y 11m	0 km

Greatest elapsed time for this species

Southern Giant Petrel *Macronectes giganteus* (2, 1)

13199770	Nestling	05/01/1998	Macquarie Island, Tasmania		
	Dead	15/08/1999	Kommetjie beach	1y 7m	9462 km

958172	Adult	10/11/1984	Marion Island		
	Dead	30/12/1999	Auckland, Australia	15y 2m	9743 km

Greatest elapsed time for this species

Cory's Shearwater *Calonectris diomedea* (1, 0)

L18993	Nestling	13/10/1984	Ilha da Madeira		
	Died	12/01/2000	Jeffreys Bay, E Cape	15y 3m	8322 km

Greatest elapsed time for this species

White Pelican *Pelecanus onocrotalus* (0, 1)

H01008	Nestling	20/12/1972	Walvis Bay, Namibia		
	Resighted	08/10/1999	Swakop River Mouth, Namibia	26y 10m	20 km

Cape Gannet *Morus capensis* (93, 117)

9A23151	Nestling	15/02/1999	Bird Island, Algoa Bay		
	Dead	29/09/1999	Baia dos Tigres, Angola	0y 7m	2406 km

White Stork *Ciconia ciconia* (5, 0)

B 373	Nestling	28/06/1984	Zescha, Bautzen, Germany		
	Dead	17/12/1999	Graaff-Reinet District, E Cape	15y 6m	9303 km
BN 1732	Nestling	12/07/1997	Murowana Goslina, Poland		
	Dead	06/11/1999	Uitgezocht farm, Mpumulanga	2y 4m	8845 km
BN 2385	Nestling	28/06/1996	Zedowice, Poland		
	Dead	10/09/1999	Near Vivo, N Province	3y 2m	8249 km
TA02165	Nestling	25/06/1998	Zreme, Croatia		
	Dead	15/02/1999	Gokwe, Zimbabwe	0y 8m	7177 km
TA04102	Nestling	23/06/1999	Lukavec, Sisak, Croatia		
	Injured	21/12/1999	Inchbrakie farm, KwaZulu-Natal	0y 6m	8421 km

Knobilled Duck *Sarkidiornis melanotos* (1, 0)

65700866	7–12 m	05/03/1973	Chiredzi, Zimbabwe		
	Shot	15/09/1994	Dilling, Kordofan, Sudan	21y 6m	3683 km

Greatest elapsed time for this species

Pygmy Falcon *Polihierax semitorquatus* (0, 1)

5H11006	Adult	11/11/1996	Vroegedeel, N Cape		
	Control	17/02/2000	Vroegedeel, N Cape	3y 3m	2 km

Greatest elapsed time for this species

Longcrested Eagle *Lophaetus occipitalis* (0, 1)

845604	3+ years	03/10/1992	Kiaatkop farm, Mpumulanga		
	Resighting	03/01/2000	Kiaatkop farm, Mpumulanga	7y 3m	0 km

Blackbreasted Snake Eagle *Circaetus pectoralis* (1, 0)

995301	Nestling	03/02/1995	Damplaas, N Cape		
	Drowned	03/11/1999	S. of Keetmanshoop, Namibia	4y 9m	437 km

Greatest distance moved for this species

Forest Buzzard *Buteo trizonatus* (1, 0)

784888	Adult	22/11/1992	Port Elizabeth, E Cape		
	Hit by car	11/11/1999	W of Port Elizabeth, E Cape	6y 11m	4 km

Greatest elapsed time for this species

Little Sparrowhawk *Accipiter minullus* (1, 0)

4A06390	Adult	12/07/1995	Waterpoort, N Province		
	Dead	10/01/2000	Waterpoort area, N Province	4y 6m	4 km

Greatest elapsed time for this species

Pale Chanting Goshawk *Melierax canorus* (4, 19)

841772	Adult	14/09/1993	Near Aberdeen, E Cape		
	Shot	20/01/2000	Cullinan, Gauteng	6y 4m	873 km

Greatest distance moved for this species

Crowned Crane *Balearica regulorum* (0, 1)

9A15373	Adult	04/06/1999	Memel district, Free State		
	Alive	07/03/2000	Grootgeluk mine, N Province	0y 9m	482 km

Greatest distance moved for this species

Ringed Plover *Charadrius hiaticula* (1, 0)

81525382	1–2 years	12/09/1999	Jonkoy & Dzhankoy, Ukraine		
	Dead	14/02/2000	Port Elizabeth, E Cape	0y 5m	8903 km

Greenshank *Tringa nebularia* (0, 1)

D01531	Adult	20/03/1992	Port Alfred, E Cape		
	Resighting	19/09/1999	Port Alfred, E Cape	7y 6m	2 km

Arctic Skua *Stercorarius parasiticus* (2, 0)

ES42888	1–2 years	01/07/1994	Foula, Scotland		
	Injured	02/01/2000	East London, E Cape	5y 6m	10 713 km

ES60201	Immature	13/06/1996	Foula, Scotland		
	Dead	17/02/2000	Sandwich Lagoon, Namibia	3y 8m	9401 km

Subantarctic Skua *Catharacta antarctica* (1, 4)

822885	Nestling	05/01/1987	Marion Island		
	Wing broken	12/04/2000	Kasouga R, E Cape	13y 3m	1742 km

Hartlaub's Gull *Larus hartlaubii* (13, 26)

561283	Nestling	14/06/1975	Robben Island, W Cape		
	Control	17/03/2000	Paarl, W Cape	24y 9m	56 km

Common Tern *Sterna hirundo* (12, 15)

H169097	Nestling	19/06/1984	Parnu, Estonia		
	Dead	13/02/2000	Walvis Bay, Namibia	15y 8m	9060 km

Sandwich Tern *Sterna sandvicensis* (3, 8)

DN92467	Nestling	22/06/1989	Wexford, Eire		
	Control	18/02/2000	Strand, W Cape	10y 8m	9918 km

Swift Tern *Sterna bergii* (12, 2)

569256	Nestling	16/04/1979	Marcus Island, W Cape		
	Dead	20/11/1999	Rooi Els beach, W Cape	20y 7m	159 km

Greatest elapsed time for this species

5H15168	Nestling	05/04/1999	Luderitz, Namibia		
	Injured	06/09/1999	Near Port St Johns, E Cape	0y 5m	1490 km

Rosy-faced Lovebird *Agapornis roseicollis* (1, 0)

4H04125	Adult	27/12/1996	Dabis guestfarm, Namibia		
	Dead	24/12/1999	Dabis guestfarm, Namibia	3y 0m	0 km

*First recovery of this species***Half-collared Kingfisher** *Alcedo semitorquata* (0, 4)

E24776	Adult	21/03/1997	Ndubazi, Mpumalanga		
	Control	13/11/1999	Ndubazi, Mpumalanga	2y 8m	0 km

*Greatest elapsed time for this species***Scimitar-billed Woodhoopoe** *Rhinopomastus cyanomelas* (1, 1)

CC18799	Immature	22/05/1996	Botanical Gardens, Free State		
	Control	26/04/2000	Botanical Gardens, Free State	3y 11m	0 km

*Greatest elapsed time for this species***Pied Barbet** *Tricholaema leucomelas* (1, 34)

BC31656	Adult	13/03/1993	Stonehenge farm, NW		
	Control	23/04/2000	Stonehenge farm, NW	7y 1m	2 km

*Greatest elapsed time for this species***Olive Woodpecker** *Mesopicos griseocephalus* (1, 0)

486811	Unknown	11/01/1991	Goukamma NR, E Cape		
	Dead	01/12/1999	Buffelsbaai, E Cape	8y 11m	3 km

*Greatest elapsed time for this species***Sabota Lark** *Mirafra sabota* (0, 1)

BC66063	Adult	14/10/1995	Vaalkopdam, NW		
	Control	01/05/2000	Vaalkopdam, NW	4y 7m	4 km

*Greatest elapsed time for this species***Dune Lark** *Certhilauda erythrochlamys* (0, 2)

F34468	Unknown	19/02/1993	Khomabes, Namibia		
	Control	18/05/2000	Khomabes, Namibia	7y 3m	0 km

*Greatest elapsed time for this species***European Swallow** *Hirundo rustica* (5, 42)

AD04574	Unknown	29/12/1991	Skinner Spruit, Gauteng		
	Dead	15/10/1999	Nyarambe, Uganda	7y 10m	3119 km

H269860	Adult	01/10/1991	West Stafford, UK			
	Hit by car	24/12/1999	Queenstown–Cathcart, E Cape	8y 3m	9652 km	

South African Cliff Swallow *Hirundo spilodera* (0, 30)

AD42207	Adult	16/01/1993	Rodekraal, NW			
	Control	22/11/1999	Tygerfontein, NW	6y 10m	6 km	

Redeyed Bulbul *Pycnonotus nigricans* (8, 48)

BC14876	Adult	26/03/1992	Schoemanshof, NW			
	Control	29/08/1999	Schoemanshof, NW	7y 5m	0 km	

Greatest elapsed time for this species

BD21890	Adult	29/03/1995	Near Potchefstroom, NW			
	Shot	04/12/1999	Stonehenge farm, NW	4y 8m	300 km	

*Greatest distance moved for this species***Orange Thrush** *Zoothera gurneyi* (0, 7)

BB91189	Immature	09/05/1992	Seldomseen, Zimbabwe			
	Control	01/02/2000	Seldomseen, Zimbabwe	7y 9m	0 km	

*Greatest elapsed time for this species***Chorister Robin** *Cossypha dichroa* (0, 8)

BB55769	Adult	22/03/1992	Feather River, Mpumulanga			
	Control	20/11/1999	Feather River, Mpumulanga	7y 8m	3 km	

*Greatest elapsed time for this species***Swynnerton's Robin** *Swynnertonia swynnertoni* (0, 1)

AA92184	Adult	11/03/1994	Seldomseen, Zimbabwe			
	Control	09/05/2000	Seldomseen, Zimbabwe	6y 2m	0 km	

*Greatest elapsed time for this species***Cape Reed Warbler** *Acrocephalus gracilirostris* (1, 106)

F88756	Adult	18/07/1998	Potsdam, W Cape			
	Control	22/01/2000	Paarl, W Cape	1y 6m	44 km	

F88758	Adult	18/07/1998	Potsdam, W Cape			
	Control	24/07/1999	Paarl, W Cape	1y 0m	44 km	

*Both records: greatest distance for this species***Karoo Prinia** *Prinia maculosa* (1, 34)

X97587	Adult	31/08/1993	Durbanville, W Cape			
	Dead	01/07/1999	Ysterfontein, W Cape	5y 10m	69 km	

*Greatest distance moved for this species***Bluemantled Flycatcher** *Trochocercus cyanomelas* (0, 1)

AD26602	Adult	07/01/1994	Mkuze, KwaZulu-Natal			
	Control	23/07/1999	Mkuze, KwaZulu-Natal	5y 6m	0 km	

Greatest elapsed time for this species

Southern Boubou *Laniarius ferrugineus* (0, 6)

472942	Adult	06/10/1985	Mataffin, Mpumalanga		
	Control	14/08/1999	Mataffin, Mpumalanga	13y 10m	2 km

Greatest elapsed time for this species

Threestreaked Tchagra *Tchagra australis* (0, 5)

CV03518	Immature	04/06/1995	Near Gaborone, Botswana		
	Control	28/04/2000	Near Gaborone, Botswana	4y 11m	2 km

Greatest elapsed time for this species

Redwinged Starling *Onychognathus morio* (1, 0)

D22548	Immature	25/10/1992	Glencairn, W Cape		
	Dead	09/05/2000	Fish Hoek, W Cape	7y 6m	2 km

Greatest elapsed time for this species

Greater Doublecollared Sunbird *Nectarinia afra* (0, 10)

AB99496	Adult	08/06/1992	Lydenburg, Mpumalanga		
	Control	28/10/1999	Lydenburg, Mpumalanga	7y 5m	0 km

Greatest elapsed time for this species

Yellowbellied Sunbird *Nectarinia venusta* (0, 5)

X74386	Adult	02/10/1991	Bvumba, Zimbabwe		
	Control	27/01/2000	Bvumba, Zimbabwe	8y 4m	0 km

Greatest elapsed time for this species

Dusky Sunbird *Nectarinia fusca* (1, 0)

W21553	Adult	06/10/1997	Swakopmund, Namibia		
	Dead	01/03/2000	Karibib, Namibia	2y 5m	155 km

First recovery of this species

Black Sunbird *Nectarinia amethystina* (0, 14)

AA91570	1–2 years	21/03/1991	Mutare, Zimbabwe		
	Control	15/07/1999	Mutare, Zimbabwe	8y 4m	0 km

Greatest elapsed time for this species

Scalyfeathered Finch *Sporopipes squamifrons* (0, 83)

AD76908	Adult	01/01/1995	Vaalkop Dam, NW		
	Control	24/09/1999	Vaalkop Dam, NW	4y 9m	4 km

Greatest elapsed time for this species

Redheaded Weaver *Anaplectes rubriceps* (0, 1)

BD14964	Adult	20/03/1994	Driefontein, NW		
	Control	07/12/1999	Shakari, NW	5y 9m	4 km

First control of this species

Cape Weaver *Ploceus capensis* (12, 181)

BC16786	Adult	22/01/1991	Goede Ontmoeting, W Cape		
	Control	19/05/2000	Goede Ontmoeting, W Cape	9y 4m	0 km

Redbilled Quelea *Quelea quelea* (20, 33)

AE49691	Adult	23/08/1997	De Paarl, NW		
	Poisoned	30/09/1999	Mt Hampden, Zimbabwe	2y 1m	1063 km

Red Bishop *Euplectes orix* (4, 173)

F27204	Adult	24/07/1993	Darvill, KwaZulu-Natal		
	Control	28/12/1999	Pretoria, Gauteng	6y 5m	507 km

Blue Waxbill *Uraeginthus angolensis* (0, 100)

W25810	7–12 m	08/06/1988	Mitsasa, Zimbabwe		
	Control	12/10/1999	Mitsasa, Zimbabwe	11y 4m	0 km

Greatest elapsed time for this species

Violeteared Waxbill *Uraeginthus granatinus* (1, 17)

X81628	Adult	19/08/1993	Sandveld NR, Free State		
	Control	26/08/1999	Sandveld NR, Free State	6y 0m	2 km

Greatest elapsed time for this species

Common Waxbill *Estrilda astrild* (0, 26)

X68941	Adult	12/07/1991	Darvill, KwaZulu-Natal		
	Control	12/03/2000	Darvill, KwaZulu-Natal	8y 8m	2 km

Greatest elapsed time for this species

Paradise Whydah *Vidua paradisaea* (0, 20)

BC25887	Adult	07/02/1992	Windhoek, Namibia		
	Control	24/10/1999	Windhoek, Namibia	7y 9m	0 km

Greatest elapsed time for this species

Yelloweyed Canary *Serinus mozambicus* (0, 5)

AB97684	Adult	14/04/1991	Darvill, KwaZulu-Natal		
	Control	16/10/1999	Darvill, KwaZulu-Natal	8y 6m	2 km

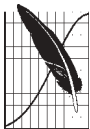
Greatest elapsed time for this species

Bully Canary *Serinus sulphuratus* (1, 2)

AA82655	Adult	04/06/1998	La Rochelle, Mutare, Zimbabwe		
	Trapped	27/04/2000	Lambo, E of Hwange, Zimbabwe	1y 11m	622 km

Erratum

Swallow K641700 should be 10 136 km (not 3807 km; *Safring News* 28, p. 41).



Ringers' Training Workshop and Conference

BirdLife SA's Wetland Centre, Wakkerstroom

Training Workshop: Saturday 1 to Thursday 6 December 2001

Ringers' Conference: Friday 7 and Saturday 8 December 2001

- ❑ **Training course:** The South African Bird Ringing Unit (SAFRING) is running a training course from Saturday, 1 December, to Saturday evening 8 December 2001. The actual training course will run from Sunday 2 to Thursday 6 December, with the final two days being the National Ringers' Conference. The training course will provide instruction on a variety of bird-ringing techniques, with the main focus on developing mistnetting skills. Beginners, current trainees and new ringers will all benefit.
- ❑ **National Ringers' Conference:** This will be held on Friday 7 and Saturday 8 December. All ringers and people interested in ringing are invited to attend.
- ❑ **Venue:** BirdLife South Africa's Wetland Centre, Wakkerstroom. The town is a 285 km drive from Johannesburg on the old Durban Road, via Standerton and Volksrust. Ringing stations will be set up in a number of habitats including wetland, grassveld, thornveld, montane forest and Leucosidea-scrub. An extensive network of gravel roads is available for those who wish to capture and ring raptors.
- ❑ **Accommodation:** BirdLife South Africa Wetland Centre: (1) Dormitory: self-catering: R65.00 p.p.d. (communal kitchen, bedding provided), (2) Camp site: R30.00 per site (max. 4 people per site), tented camping only. Please note there will be an additional charge of R10.00 per person for 'non-BLSA members'. Other camping and B&B facilities are also available in the area; for information contact André Botha, details below.
- ❑ **Cost:** The cost of the course is R500 for trainees. This covers the cost of rings, use of equipment, workshop material and two social braais. Excluded are the cost of accommodation and other meals. The administration fee for ringers is R30 per day.
- ❑ **Information/bookings:** Sue Kuyper, ADU, UCT, Rondebosch 7701
Tel/fax: (021) 650-3434, email: sunshine@maths.uct.ac.za or:
André Botha, tel/fax: (017) 730-0433, email: ajbotha@dorea.co.za

SAFRING is a project of the Avian Demography Unit of the University of Cape Town. Its main sponsors are the South African Department of Environmental Affairs and Tourism, BirdLife South Africa, the Namibian Ministry of Wildlife and Tourism, and the Tygerberg Bird Club. The University of Cape Town provides accommodation and services.



Notice to contributors

- Ringers are encouraged to send contributions to any of the sections in *Safring News*.
- Articles should be typed in double spacing using wide margins. Contributors are urged to submit their text in ASCII format on stiffy disk, or via email.
- Black-and-white illustrations of general impressions and/or specific species are always in demand; the artist will be acknowledged on the flagstaff page.
- Colour or black-and-white photographic prints of ringed birds or any ringing procedure or site are also very welcome.
- Submissions should reach SAFRING by June or November for inclusion in that issue.
- Suggestions for improvement to the format or content, together with all other material for the publication, should be addressed to:

The Editor
SAFRING
University of Cape Town
Rondebosch
7701
South Africa

Tel: 021-6502421/2
Fax: 021-6503434
Email: safring@maths.uct.ac.za

Safring News

Volume 29 Number 2

2000

Contents

Editorial	57
Papers: Localities	
C. Symes, O. Wirminghaus & C. Downs. Ringing efforts in two South African mistbelt mixed <i>Podocarpus</i> forests	59
Papers: Bird Groups	
S.J. Tyler. Great Reed Warblers in south-east Botswana	67
A. Monadjem. Warblers ringed in Swaziland between 1994 and 1999	73
M. Herremans & W.D. Borello. Possible Violet Widowfinch in Botswana?	79
J. Moorcroft. Ringing Lesser Kestrels in the Karoo	81
Papers: Techniques	
D. Forbes. The Pierce Springtrap	83
Reports	
H.D. Oschadleus. Wakkerstroom Ringing Training Course	85
H.D. Oschadleus, L.G. Underhill & A.C. Wolfaardt. Tribute to the <i>Treasure</i> ringers	88
H.D. Oschadleus. Report on the 1999–2000 ringing year	90
H.D. Oschadleus. Report on recoveries received at SAFRING: July 1999–June 2000	93
Notices	
T. Tree, N. Klages & L. Underhill. Antarctic Tern <i>Sterna vittata</i>	66
Ringers' Training Workshop and Conference	100
Erratum	99



**AVIAN
DEMOGRAPHY
UNIT**

Published by the
South African Bird Ringing Unit
Editor: H.D. Oschadleus

ISSN 0379-878 X