

## SWALLOW RINGING IN THE NETHERLANDS AND SOUTHERN AFRICA: THE BOTSWANA SWALLOW PROJECT

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A group of amateur bird-ringers in cooperation with the Vogeltrekstation Heteren has started a project on European Swallows *Hirundo rustica* in the Netherlands in June 1992. The aim of the project is to find out which factors are responsible for the slow and steady decrease in breeding numbers of swallows in the Netherlands. This decline is also noted in many other European countries.

In nine regions throughout the Netherlands, differing in soil and agricultural use, breeding success will be followed and both adults and juveniles will be ringed. For each regional population the following parameters will be determined: the number of breeding pairs, the production of young, the dispersion of young birds, survival of adults and juveniles and site-fidelity to the breeding areas. This project will last for five years.

Parallel with these studies a swallow ringing project has been started by the Foundation WIWO (Working Group International Wader and Waterfowl Research) to study swallows in Botswana. The WIWO is an organisation of volunteers who study waterbirds in Mediterranean and African wetlands. The dependance of

swallows on African wetlands as roosting sites during their non-breeding season provided the link with the more usual studies of the WIWO (e.g. Ens *et al.* 1990, *Ardea* 78: 1-16). Additionally, there is much resemblance with waders and other waterbirds with respect to moult and migration strategies. Swallows need to make the same decisions on when and where to moult and when and where to start fattening up before migrating back to the breeding quarters.

The aims of the Botswana Swallow Project are: to get information on the origin of swallows in Botswana during their non-breeding season, to estimate the importance of Botswana during the non-breeding season for European Swallows (including 'Dutch' swallows), to study site-fidelity to these non-breeding season sites, and the dependence of condition and moult progress on environmental conditions in the non-breeding areas. As swallows stay in southern Africa during the northern hemisphere 'winter', which is the southern hemisphere 'summer' we have avoided the terms for the seasons.

Pilot studies were carried out in 1988 and 1989 in Botswana and Namibia in order to find suitable sites for these studies. Excellent roosts with more than half a million birds were found in Botswana with very good logistics for a more intensive research programme. As only few recoveries were known from Botswana, probably due to the absence of ringing studies, Botswana was chosen for the long-term project. Furthermore, there were some suggestions that swallows breeding in the Netherlands may be present between October and March mainly above the Tropic of Capricorn 23°30'S.

Between 1911 and 1992, 29 out of 311 631 birds ringed in the Netherlands

were recovered from Africa south of the Sahara (see Figure 1). The dots above 10°N are of birds recovered from September to November or from March to May. There seem to be two areas which might be important: the southern part of western Africa (Ghana–Ivory Coast) and Zaïre. Further south there are only a few recoveries: two from Namibia, one from Zambia and four from South Africa (two birds with Dutch rings found in RSA, two birds with SAFRING rings found in the Netherlands). If South Africa is an important area in the non-breeding season for swallows breeding in the Netherlands and surrounding countries, one would have expected many more recoveries than currently available, more in the order of the recovery rate of British swallows in South Africa. Therefore, we expected a higher

recovery rate of West European Swallows (excluding British swallows) more to the north in southern Africa, for example, in Botswana.

In December 1992 and January 1993 we visited three locations in Botswana: the Gaborone Dam, the Sashe dam and the Boteti river near Maun. We trapped 5 761 European Swallows including six controls: one from Icona (Spain), Paris (probably France) and Stockholm (Sweden), two from Matsalu (Estonia) and one from Tel Aviv (Israel). Both the proportion of adults (*circa* 28%) and the recovery rate were unexpectedly high compared to the pilot study in 1987 (7% adults, no control in 3 916 birds). In both years birds were caught at exactly the same place, at the same time of the year and at the same time of the day.

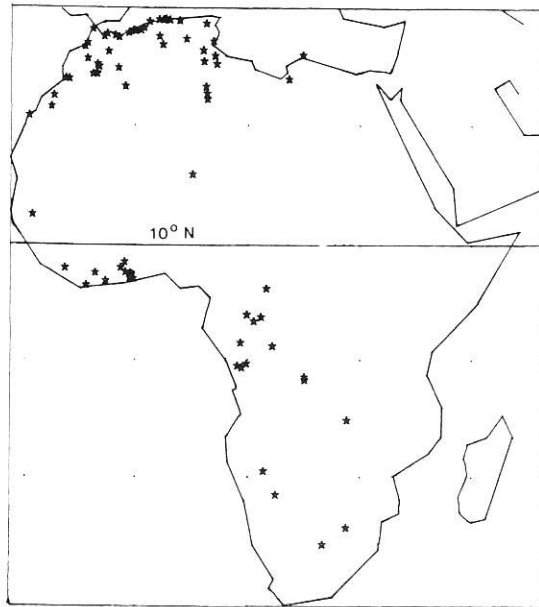


Figure 1. Recoveries in Africa of swallows ringed in the Netherlands between 1911-1992.

In Sashe dam and Gaborone dam swallows were virtually absent (abundant in Sashe in 1987) and on the Boteti numbers were clearly lower than in 1987. In addition to the control data, we studied the progress of moult and collected data on weight, body condition and overnight weight loss.

In January 1994 and 1995 we hope to return to the same areas to continue our studies on swallows in close cooperation with counterparts from Botswana. These extended studies will hopefully show to what degree swallows are faithful to their non-breeding areas and to what extent climatic variation influences their condition. Moreover, by ringing more swallows we hope to get a better picture of their origins in Europe.

Other aspects of interest will be the possible threats to swallows in their non-breeding areas in Africa. These could be the grazing of reedbeds in the dry season, spraying with insecticides and spraying of Redbilled Queleas on their reedbed roosts. From the information we gathered there is a

potential overlap with the start of the Quelea campaigns in April–May and the migration period of swallows. However, no quelea spraying appears to have been carried out in Botswana as yet.

In the coming years it would be very interesting to see if there is any exchange between non-breeding sites in southern Africa. A greater intensity of swallow ringing in South Africa would therefore be very welcome.

### ACKNOWLEDGMENTS

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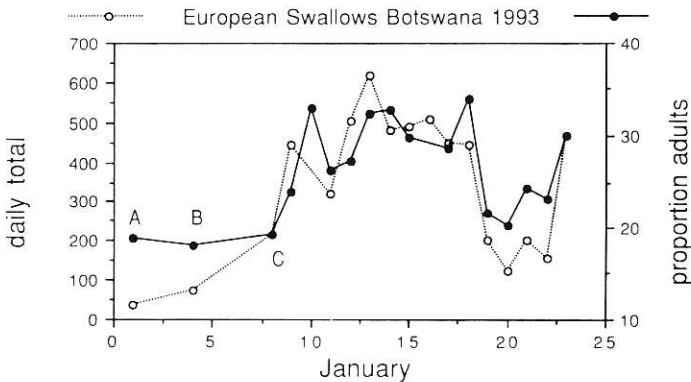


Figure 2. Daily totals and proportion of adults of European Swallows ringed in Botswana in December 1992 and January 1993. a) Gaborone, b) Sashe dam, c) Boteti River near Maun.

## CONGRATULATIONS!

Almost 3% of the SAFRING ringers received degrees at a single graduation ceremony on 4th May 1993.

The University of the Witwatersrand conferred a PhD degree upon Terry Oatley, SAFRING Coordinator, for his thesis **The biology and relationships of the Ground Woodpecker.**

A MSc was awarded to Ara Monadjem for his dissertation **The habitat factors determining the distribution of ten species of piscivorous birds on the Sabie River in the Kruger National Park in relation to river characteristics.**

Michael Raum was awarded a BSc.

*Les Underhill*

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## QUAIL TALE

I was on the point of leaving the SAFRING premises late one Friday afternoon when the telephone rang.

"Do you have any quails?" inquired an arch and very cultured feminine voice.

"No we don't," I replied, "but what precisely do you need?"

"I actually want to get hold of some quails' eggs," the lady replied, "and I was told that the University might be able to help."

The only facility I could think of at the University which might have such birds was the Medical Faculty which maintained a variety of animals for teaching and research and I told her this.

"Quite painless I'm sure," was her somewhat unexpected response. I assured her that I was also sure, but

doubted that I would be able to find anybody that late on a Friday afternoon who could tell me if they did have any quails. If she would care to 'phone me again on Monday morning, I said, mentally envisioning a gourmet banquet in Constantia that featured quails eggs on the menu, I would endeavour to find out.

She thanked me sincerely, then asked:

"What Department am I through to?"

"This is the BIRD RINGING UNIT, SAFRING" I replied.

There was a long pause, then:

"Ooohh. When I got through to the University exchange they said they would put me through to the MURDERING Unit, and when I asked "the **what?**" the exchange replied "SUFFERING".

She never did 'phone back on Monday morning!

*Terry Oatley*