THE EURING SWALLOW PROJECT

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Introduction

The importance of coordinated large-scale projects for the involvement of ringers has been evident in recent years. Field methods can be tested and introduced widely among ringers belonging to different schemes, with the scientific problems addressed by the project becoming priorities for the ringers, who feel strongly motivated by the possibility of working with many other colleagues in their own country as well as abroad.

The interest raised during the early years of the EURING Acroproject and the field activities carried on in several countries have allowed the collection of a large amount of original data. The project also stimulated activity at new ringing sites which have since been worked on a regular basis

There is currently concern in several countries about an increasing and generalized negative attitude towards ringing. Bird ringing is regarded by some as an old-fashioned technique which has, despite the huge number of birds ringed, not produced enough scientific results to justify further birds being trapped and handled. EURING has the responsibility of reacting to these attitudes by showing how much value ringing has for the study and conservation of birds, as well as for addressing scientific questions in zoology.

EURING is now looking to start a new, large-scale project addressing several important problems and involving as many ringers as possible within as well as outside of Europe. The target species for this new project is the European Swallow *Hirundo rustica*. It is a good choice for several reasons.

- It is a good indicator of habitat conditions with respect to agricultural practices.
- There is concern about its decline in some areas.
- It is an ideal subject for dispersal and survival studies.
- It is a trans-Saharan migrant, with conservation problems in Africa also related to direct human impact.
- It is a symbol of bird migration.
- It is a preferred species by the vast majority of the public across Europe.
- From the point of view of field work, it is one of the easiest birds to ring, as a chick, as a breeding adult, and as a migrant at roost sites, where it is also the easiest of birds to handle in large numbers.

Traditionally the European Swallow is one of the most common and widespread bird species in farmland habitats in Europe, but it is experiencing a widespread decline over most of the continent. Different causes could be responsible for these negative population trends, and habitat changes or pesticide use have been put forward as the main explanations for the decline in some countries. A large-scale integrated analysis aimed at identifying the ecological factors threatening European Swallows is urgently needed in order to plan biologically sound conservation policies.

Main aims of the project

The project will aim to document differences in breeding success, in local recruitment rate, in adult return rates and in movements between farms within study areas related to contrasts in wet/dry, rich/poor soils and small/large-scale agriculture. It is believed that differences between areas where the species is declining in numbers and areas where the species is doing well may be attributed to as yet unknown combinations of the above factors.

Answering these questions will provide sound understanding of the key factors affecting European Swallows on their breeding grounds. Data on their breeding success will be offered as a very useful parameter to evaluate the impact of agricultural practices and habitat modification on European insectivorous birds. Gathering data on adult return rates to the breeding territories will also provide information on survival rates of the different

geographical populations of European Swallows; these results will be pertinent to the general ecological conditions that the swallows experience in their African winter quarters.

Aspects related to migration

Within the context of the absolute need for an international approach to the conservation of migratory birds, the European Swallow offers typical examples of populations being 'shared' by different countries during their annual cycle. For example, Slovanian swallows fatten in northern Italy on their way south to Africa.

In the pre-migratory phase, as well as in many cases during migration and wintering, European Swallows are strongly reliant on reedbeds for roosting. These fragile habitats are highly threatened, both in the Palearctic and Africa. So far, not much attention has been given to problems related to the conservation of reedbeds from the swallow perspective. This project should thus address the problem and provide a first inventory of reedbed areas hosting European Swallow roosts of particular importance.

Aspects related to wintering areas

Quite large sets of winter recoveries are already available for some populations of European Swallows; in recent years very interesting changes have been indicated in the winter range of some of these populations (e.g. in swallows from the British Isles). The project will enable the long-term monitoring of any changes in their wintering ecology.

The recent discovery of a huge roost in Nigeria, containing up to 40 million birds and facing serious problems of harvesting in large numbers by local people (see *Safring News* 24: 85-86, 1995), has drawn attention to the need for identification and protection of such important areas. This has also highlighted the importance of involvement of international conservation bodies in addressing conservation-oriented education programmes and integrated management policies.

A further interesting area of research is the study of moult strategies of different geographical populations in Africa. This might help to interpret the information gathered in recent years from European Swallow moult studies in southern Europe.

Main aims

- To identify the winter quarters of the different European Swallow populations.
- To locate main African winter/spring roosts of crucial importance for swallows breeding in Europe.
- To set up a global strategy plan for the conservation of the main African roosts and to stimulate integrated development programmes offering alternative sources of protein to the local people in situations where the swallows are subject to intensive harvesting, as is the case in Nigeria.
- To study winter moult patterns of the different populations in order to obtain an overview of the geographical variation in moult strategies shown by a widespread species of long-distance migrant.

Field methods: Africa

The ringing of swallows at roost sites allows for the marking of satisfactory numbers of birds with relatively little effort. Each roost should be worked for the whole wintering period; captures could be either on a daily basis or otherwise normalized (e.g. one day in every five). In order to cover the whole period without causing too much trouble or stress to the ringer(s), the number of nets will have to be carefully related to the potential manpower and the need to process the birds as quickly and efficiently as possible. Lower daily figures for a longer period will provide much more detailed data than large but occasional catches. Standard protocols for data collection will be essential and will involve biometrics, levels of fat accumulation, muscle score, body mass and moult.

'EURING expeditions' and European-African contacts

The Swallow Project will provide valuable opportunities to improve contacts between European and African ringing schemes and ringers. There will be 'EURING expeditions'

which will involve ringers from different ringing schemes in Europe studying key sites in Africa in cooperation with African colleagues. In addition to gathering data on different aspects of winter ecology of crucial importance for the conservation of European Swallows, these expeditions will also offer field training to less experienced local trainees.

Coordination

At least three ringing centres will be involved in the coordination of the three main areas of research: a) breeding biology and dispersal, b) pre-migratory behaviour and flyways and c) winter ecology. The centres are likely to be: a) Netherlands, b) Italy and c) South Africa.

For each of the three main areas of interest there will be at least one field coordinator and one data coordinator. A regular newsletter will be produced (probably for each of the three main research areas) which will contain summary statistics, brief local reports, methodological suggestions and techniques and the names of all participants.

The project is planned for a five-year period and may commence in the European summer of 1997. The first year will probably be regarded as an experimental phase in which to check methods and data-gathering techniques.

An inventory of the main roost sites in southern Africa will be a very useful preparation for local participation in the EURING Swallow Project. Once the project is firmly underway in Europe, there will be substantial increases in the numbers of migrant swallows bearing rings and a concomitant increased likelihood of southern African ringers controlling these birds.

TWO RINGS RECOVERED FROM ONE PALE CHANTING GOSHAWK

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When I began studying the behavioural ecology of the Pale Chanting Goshawk *Melierax canorus* in the Little Karoo in 1988, one of the short term objectives was to ring and mark individual birds for later identification. It was essential to keep track of individual family members that either delay dispersal as non-breeders, or the occasional male that co-bred with a male and female in polyandrous trios.

I initially marked birds with colour rings and later, with patagial tags, neither of which lasted the eight years the study has been in progress. After a few years I sat with the predicament that I had many ringed Pale Chanting Goshawks in my study area, but only a few that I could identify individually.

However, in June 1992, one of the Balchatri Brigade (name not supplied for obvious reasons) drove into the study area. This ringer, unaware of my research, dropped the Balchatri in sight of the first Pale Chanting Goshawk encountered, caught the bird and ringed it. Only then did he realise that on the other leg, of all things, was another metal ring! So it turned out that this bird, which I caught during 1988 with Ian Newton's nest ring, was double-ringed! Since this female occupied a territory bisected by the national road, it was, from then, on easy to identify 'old Double-Rings' as she perched prominently on a telegraph pole.

The story does not end there because, in early 1996, a school friend was cycling through the Karoo (crazy idea), stopped for some reason (not such a crazy idea), saw a ringed bird lying on the ground and reported it (very good idea). It was 'Double-Rings', road-killed 91 months after being ringed for the first time. I wonder if, during her lifetime, she appreciated her costume jewelry?
