

Euring

Co-ordinating bird ringing throughout Europe



EURING Swallow Project

The Swallow (*Hirundo rustica*) is a common bird with a strong binding to human settlements in most parts of Europe. It is sexually dimorphic, a long-distance migrant, it enjoys a high public interest and it is a subject of conservation concern. All this, and furthermore the relatively easy access to breeding sites and roosts makes this species an ideal target for an international research project. EURING initiated Swallow studies in many European countries, supports activities in the African winter quarters and cooperates with projects in other parts of the world.

The EURING Swallow project aims to focus on three aspects:

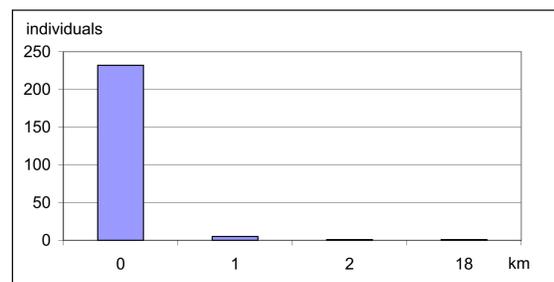
- breeding biology and dispersal
- migration patterns and routes
- winter ecology and distribution



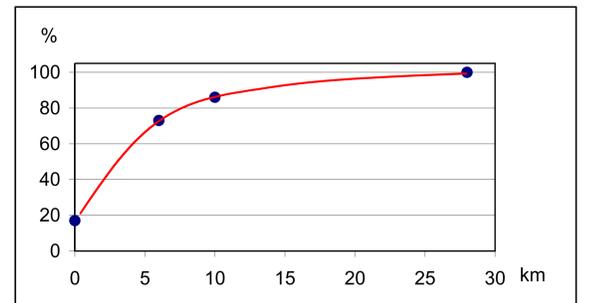
Breeding biology and dispersal

The Swallow, traditionally one of the most common and widespread bird species in European farmland habitats, 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.

The main aims are to document differences in breeding success, in local recruitment rate, in adult return rates and in movements between farms within study areas related to environmental contrasts, such as 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.



High nest site fidelity: distance between nests of breeding Barn Swallows in Finland in two subsequent years. Data from Saurola 2001, EURING Newsletter.



Natal dispersal of Finish Barn Swallows (uncorrected for ringing effort) Data from Suarola 2001, EURING Newsletter

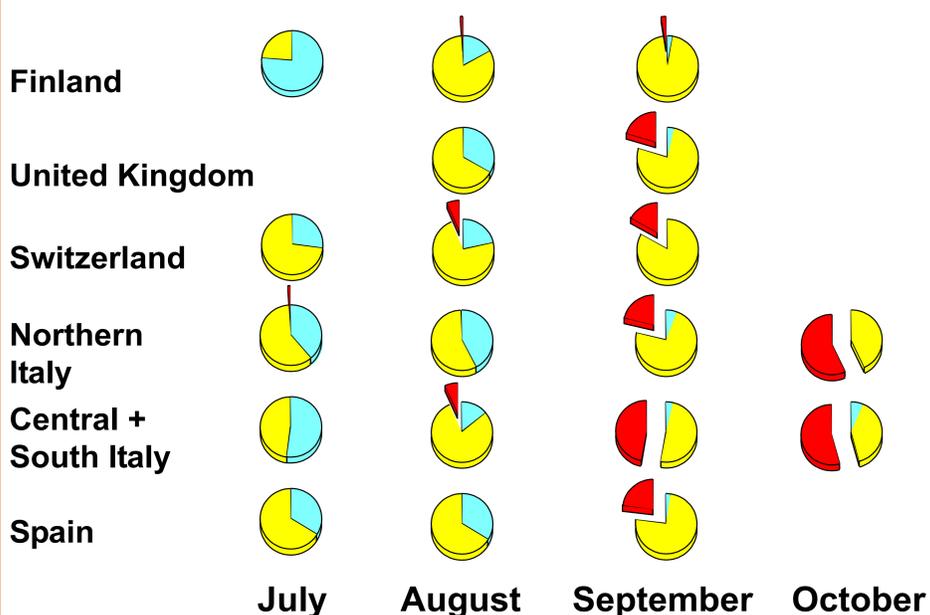
Migration patterns and routes

This part of the project strongly focusses on the migration strategies of Barn Swallows. Investigations are mainly concentrated on the large roosts in autumn and the following questions are addressed:

- do Swallows accumulate as large fat reserves as other trans-Saharan migrants?
- if so, where and when do they start to put up fat?
- do their fat reserves allow a direct crossing of sea and desert without refuelling?
- are there geographical differences in the fattening pattern (and migration strategy)?



Main migration routes of Barn Swallows in Western Europe



Flight range (calculated from fat deposition) of adult Barn Swallows trapped at various roosts in Europe. Blue < 500 km, Yellow: 500 - 3000 km, Red > 3000 km. From Pilastro & Spina (1998), Proceedings 22. IOC, Durban.

Winter ecology and distribution

The main aims of this project part are:

- to identify the winter quarters of the different European populations;
- to locate main African winter/spring roosts of crucial importance for European breeding Swallows;
- with other international conservation agencies, to help initiate a strategy for the conservation of the main African roosts;
- to study winter moult patterns of the different populations in order to gain a general overview of the geographical variation in moult strategies shown by a widespread long-distance migrant.

One Example of a Swallow ringing project in the wintering quarter is the Bloemfontein Swallow Project in South Africa (see www.nasmus.co.za/ornithol/swallow1.html)



Poster by Wolfgang Fiedler; Chris du Feu, Fernando Spina and Stephen Baillie added helpful suggestions.