

Swifts start to share their secrets

As we begin to unravel the secrets of more of our birds with the use of various types of tags, Graham Appleton reports on the fascinating results being revealed by tagged individuals of one of our most enigmatic birds: the Swift.

I remember the buzz of excitement, back in 1976, when reports circulated of a Warwickshire-ringed Swift that had been shot in Mozambique on 24 November, 1975. Not only was this the first bird to be found in that country, it had also survived for 12 years since being ringed at Castle Bromwich by H & D Lees. I had my own 'Swift-flicking' site at the time and it was easy to imagine that one of my birds could do something similar.

EMERGING FACTS

By the time of the Migration Atlas, using data through to 1997, there was a veritable rash of winter records (Fig 1a) and it would be reasonable to assume that 'our' birds spend the winter across a broad sweep of Africa from the skies above Congo, through eastern Africa and onwards to the Indian Ocean. (Grey dots refer to birds that were found during winter months but long dead). There was no indication from the maps, however, of whether individual birds move around during the winter or if birds use different areas in different winters. The map for spring shows some birds are still to be found over the Congo rainforests, whilst others are over the north African coast and many are already back in the UK (Fig 1b).

GEOLOCATORS ENABLE A BREAKTHROUGH

By attaching geolocators to a small number of Swifts, Chris Hewson and Phil Atkinson have completely changed the picture we have of the lives of these wonderful masters of the air. One individual, known as A320, was tagged overnight on 21/22 July in 2010 at Fowlmere in Cambridgeshire (Fig 2). This bird reveals three surprising pieces of information: firstly it spends time across the whole of the wintering area that had been identified with the help of decades of

ring recoveries; autumn migration takes it through countries that make up the Atlantic seaboard of northern Africa and, finally, there is an important spring refuelling stop in the skies above Liberia.

One Swift, however, does not make a migration story! Fortunately the BTO has tagged and recaptured nine of these birds in the UK, as part of a multinational project covering countries from Sweden through to Israel. The information from A320 is being replicated by other birds, revealing just how mobile they are, presumably as they key in on areas of temporarily superabundant food, according to the seasonal patterns of productivity across the vast African continent.

FROM LOCATION TO CONSERVATION

Chris Hewson, who has been analysing the British data, is already amazed by the conservation value of the new maps. "The ten day stop over in West Africa is really interesting because presumably the birds are fattening ready for their journey back to Britain – we know they can make it back from there in less than a week! Previously it was thought that, because they feed on the wing, Swifts simply make their way more slowly, but directly, feeding as they go, without the need for extended stop overs. This is completely new information and pinpoints a focal area for future research. As the Swift hasn't advanced its arrival date in Britain, understanding the species' spring migration strategy will be a very important step." It is difficult to provide confident estimates of the size of the decline in Swift numbers but everyone agrees that numbers are going down. The only difference that we, as individuals, can make is to ensure that there are nest sites available. However, looking at the year-round story of one Swift's life, there may well be other processes at play with which we need to get to grips.

ACKNOWLEDGEMENTS

The work on Swift research has been supported by Action for Swifts and with money from the *Out of Africa* appeal. It is hoped that we can repeat this work to look for annual variations in the pattern of movements, relating these to weather conditions in Africa and whilst on migration. Further funding is being sought for this work.

SWIFT MIGRATION MAPS: ATLAS DATA 1909–97



Fig 1a. Winter records of Swifts (grey dots = 'long dead'). It was assumed that British & Irish individuals wintered in a range of African countries.



Fig 1b. There were few spring records and it was assumed that the lack of recoveries between the south side of the Sahara and the Congo Basin indicated that Swifts may pass through fairly fast.

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Step-by-step migration: on the wing with Swift A320

We follow one individual Swift, known as A320, tagged overnight on 21/22 July in 2010 at Fowlmere in Cambridgeshire.



THE GEOLOCATOR PROJECT

Phil Atkinson reports

The Swift geolocator project has only been possible thanks to excellent collaborations between BTO staff and volunteer ringers. The Swifts tagged so far have been caught at study colonies operated by Paul Noakes (Great Yarmouth), Doug Radford (Fowlmere) and Jamie Hooper (La Société Guernesaise, Guernsey). We hope to continue this work in 2012 and would be pleased to hear from ringers or non-ringers alike who study suitable colonies – colonies in nest boxes and particularly those with cameras in the boxes are especially suitable.

We would also be very pleased to receive the remains of eggs found underneath Swift boxes, both those found early and late in the season. It is not uncommon for lost eggs to be found under boxes and we would greatly appreciate receiving remains found, so that isotopic analyses can be undertaken. If you can help please contact chris.hewson@bto.org.

KEY

- Southward migration
- Northward migration
- Winter range & movements

STEVEN ROUND stevenround-birdphotography.com