

SWIFT moves

Hummingbirds and swifts vie for the title of the bird world's most extreme flyers, perhaps not surprisingly, given that they are each other's closest relatives. However there is no doubt that swifts are among the most aerial of birds. Common Swifts *Apus apus* are renowned for spending eight months of the year in the air, not landing from when they leave their breeding grounds in early August until they return the following April–May. Ringing recoveries show that European birds travel south to winter across much of Africa south of the Equator, but until recently their movements during these long aerial sorties were largely unknown.

In 2010 a collaborative project was initiated to track Common Swifts year round. The May/June 2012 issue of *BTO News* lifts the lid on the movements of one such bird, which was tagged on 21 July 2010 near Cambridge in the UK. The swift was equipped with a tiny light logger or geolocator. Weighing barely one gram, this device recorded light intensity every minute for a year. The logger was recovered when the swift was recaptured at its breeding colony on 8 May 2011. From

the light-intensity data, we can work out the time of sunrise and sunset, and use this to estimate the swift's daily location. Day length tells us how far north or south a bird is (except around the equinoxes), while time of sunrise/sunset tells us how far east or west it is. This is fairly crude – only accurate to around 200 kilometres – but it is sufficient to tell us how a swift moves on a continental scale.

The map tells the story. The swift travelled by way of Spain and Morocco to Senegal, then flew rapidly across West Africa to spend almost four months over the Congo Basin. In mid-December it moved south-east to Malawi and northern Mozambique, presumably following the advent of the summer rains in these regions. It returned to the Congo Basin at the end of January, and remained there until early April when it headed back to West Africa. It spent 10 days refuelling over Liberia before making a fast dash across the Sahara to Morocco and then on to Spain and 'home' in the UK.

This Common Swift spent more than half the year over tropical rain-forest, but it is only one bird's track; eight more British swifts have already been recaptured bearing their precious loggers, and more have been tagged from Sweden to Israel.

Apart from the fascinating insights the loggers give us about the lives of Common Swifts, there is a more pressing reason for the research. Swift numbers are decreasing in the UK, where they are one of the few migrant species that haven't started arriving earlier in spring, linked to ongoing climatic warming. By understanding their movements in winter and tracking how these change over time, we might be able to infer the reasons for their decreases and their failure to respond to the advancing seasons.

PETER RYAN



COMMON SWIFTS SPEND **EIGHT MONTHS OF THE YEAR IN THE AIR, WITHOUT COMING IN TO LAND**

COMMON SWIFT PETER RYAN