

Migration of the European Cuckoo from England to Africa

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Over two billion birds migrate between Europe and Africa each year and, as elsewhere on the globe, many of these long-distance migrants are showing severe population decreases. The British Trust for Ornithology (BTO) has been undertaking a research programme into the ecology and demography of these birds, with the aim of helping to determine the causes of these declines.

When we became aware of the availability of a PTT weighing only 5g from Microwave Telemetry, we were immediately excited by the possibilities that this opened up, with the opportunity of tracking European Cuckoos (*Cuculus canorus*) being a particular highlight. This species tends to be at a low density and is hard to catch, so the numbers banded each year in Britain are low. Consequently, we have very little information on where British birds spend the winter or the routes they take to get there. For instance, there is only one recovery of a British-banded Cuckoo in Africa south of the Sahara—a juvenile ringed in a Pied Wagtail's (*Motacilla alba*) nest at Eaton in 1928 which was recovered in Cameroon in January 1930.



Chris Hewson, Kasper the Cuckoo and Paul Noakes.

Photo by Phil Atkinson/BTO

With the help of Kasper Thorup and Mikkel Kristensen, a team comprised of BTO researchers and ringing volunteers carried out an initial deployment of five PTTs on male Cuckoos in southern England in May and June 2011. As the tags are towards the upper limit of the

load we would be prepared to ask a bird of the size of a Cuckoo to carry, we tagged only male birds weighing more than 115g.

Initial results have been stunning. As of late October 2011, the tags on all five Cuckoos were still providing regular locations. The annual survival rate of the species is not high, so this presents great results in terms of both bird and tag longevity! Within the first two months, we were able to identify important stop-over locations used by the Cuckoos, notably the watershed of the River Po in northern Italy—an area we suspected was important, based on ringing recoveries. Three of the birds used this area to fatten for 3-4 weeks in July before moving rapidly south over the central Mediterranean and onwards over the Sahara at just about its widest point. Understanding how the use of these stop-overs relates to success in crossing the desert could be an important step to understanding the species' population changes.

The other two birds did something quite unexpected, leaving Europe by a south-westerly route via Spain; this was unknown on the basis of ringing recoveries. Both of these birds continued south-west once in Africa, heading over the Sahara to the far western part of Africa. Once across, both birds spent some time in Senegal before moving eastward toward the other three Cuckoos and stopping in Nigeria. Previously, it was thought that all Cuckoos in West Africa were of the smaller Iberian race *bangsi* (birds caught here and museum collections suggest this is the case) so this was an unknown migration route for the nominate race.

During October, the three Cuckoos that took the central Mediterranean flyway moved south. One stopped on the northern edge of the Congo rainforest, one deep within it next to a major tributary of the Congo River and one headed straight over to the savannas on its south side. This last bird took a similar route to the Eurasian Hobbies that were tracked from Sweden using the same model PTTs, minimising the width of rainforest that was crossed.



Migration routes of the five Cuckoos. Lyster and Clement took a route via West Africa whereas Kasper, Chris and Martin took a more direct route via Italy to central Africa, covering approximately 2,500km less in the process!

Already the results have revolutionised our understanding of what Cuckoos (at least males...) do once they leave the shores of Britain behind. The coming months should provide more insights into the migration strategies of the Cuckoos. We are interested to see whether the birds that entered Africa via the south-westerly route will eventually follow the other Cuckoos into and beyond the Congo rainforest. In spring, it will be fascinating to see whether the Cuckoos fatten up for migration and leave for Europe from the southern tropics, as historically thought, or move north within Africa first. These sorts of results will have important implications for our understanding of how these birds might be affected by the changing climate, both in Africa and in Europe.

Funding for the BTO's Cuckoo tracking project was provided by the BBC Wildlife Fund and Essex & Suffolk Water, with additional donations from individual and corporate sponsors. The results and more information about the project can be found on the BTO's website - www.bto.org/cuckoos

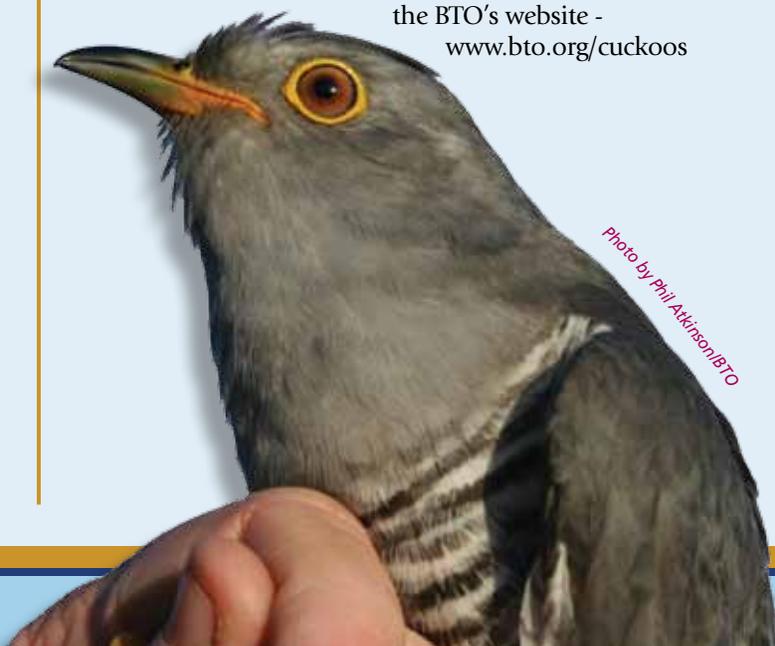


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