

The science of survival

Orly Razgour is working on a joint PhD between the Bat Conservation Trust and University of Bristol on the grey long-eared bat, one of Britain's rarest and least understood mammals. We caught up with her to discuss her latest findings.

Tell us about your work, what are trying to find out about the grey long-eared bat?

I am looking at the conservation biology of the grey long-eared. I am using an approach called integrated biology which means I am using different techniques from different fields to find out about their habitat associations, distribution and what limits them. So far I have been involved in everything from radio tracking to genetic analysis.



Erika Dahlberg

So far what has been your most exciting finding?

The most surprising results have been from the radio tracking studies in Dorset and the Isle of Wight. Brown long-eared bats and grey long eared bats are very similar in appearance. So when we were tracking we thought that like the brown long-eared bat, the grey long-eared would fly about 1km from the roost to forage. The results we got were totally unexpected, grey long-eared bats fly much further from the roost up to 5km and sometimes even further, they also forage completely differently, hunting over open habitat and keeping to the edges of woodland rather than within it.

This really highlighted the need to study grey long-eared bats, everyone had assumed because the two species looked so similar they would act the same, but they have very different behaviour.

What are you working on right now?

Currently I am looking at the grey long-eared bat population structure in the UK comparing it the larger European population using genetic analysis and seeing if there is any migration between the two. In a small population there is always a risk of a breeding depression but the good news is that there seems to be good genetic diversity in the UK population.



Left: Isle of Wight September 2011

Top: At a GLE roost, Isle of Wight May 2010

Right: Devon roost – summer 2010

Below: Jersey – end of May 2011



Daniel Hargreaves

What do think are the biggest challenges to grey long-eared bats survival?

Agricultural intensification, the disappearance of meadows is a real threat. The radio tracking studies have shown meadows and unapproved grassland are vital for the grey long-eared bat but these are disappearing from the countryside. This is an on going issue that only seems to be getting worse.

The other challenge is identifying long-eared bats as they are so similar. Many roosts may not be identified correctly, but hopefully the use of DNA testing on droppings may help with this. As their habitat needs and behaviour are quite different we need to know which species is which to put effective mitigation in place.



Arturo Muñoz