

Rare bat found in Farringdon

In 2001 a species of bat previously unknown to science was described by German researchers working in the mountains of Greece. Being found also in Hungary, it was initially assumed that its distribution was confined to southeast Europe. It was named after Alcathoe (pronounced Al-ca-tho-ee), a princess who in Greek mythology was turned into a bat by Dionysos (Bacchus) for refusing to take part in his cult of wild parties.

It is what is known as a cryptic species – that is, one that looks similar to other closely related species, in this case the Whiskered bat. Over the last ten years it has been found at scattered locations and in small numbers in other European countries, including France, Germany, Italy and Spain. Then, last year, researchers from the Universities of Leeds and Sheffield conducting a survey into the genetics of Whiskered bats discovered the Alcathoe bat at two sites in Yorkshire and Sussex.

Until recently, these were the only known locations in the UK, but now Farringdon has been added to the list. It has been found and verified, not by capture and examination, but by the recording and analysis of the ultrasound cries it emits when echolocating. All British bats orientate themselves by producing high pitched squeaks and then listening for their echoes, many times per second. The frequency of the sound is so high that it is inaudible to the human ear, but with special equipment it can be recorded and played back at a slower speed. Doing so lowers the pitch to reveal a strange assortment of whistles, chirps and clicks as the bats go about their business.

Using a computer to separate the sounds into their fundamental frequencies, quantitative call characteristics can be noted and from these many species unequivocally identified. At the same time, bats will give different types of calls in different situations, which can confuse identification, and some groups of species are difficult to tell apart.

For some time I have been recording and analysing bat calls and have found more than 10 species, some quite rare, in and around the paddock next to my house. There are always some calls which defy identification though, and over the last couple of months a distinctive type, coming from a fairly quiet bat, cropped up every so often. Referring to the literature, I could see that it seemed to conform to the call of the Alcathoe bat (*Myotis alcathoe*). So I sent digital recordings of calls to experts who had recorded and studied this bat in France and Germany, including the Swedish Professor and pioneer in identification of species from ultrasound, Ingemar Ahlén. They confirmed that it was indeed the Alcathoe bat. I sent the recordings to UK experts and the Bat Conservation Trust, who have registered its presence here as part of the National Bat Monitoring Programme.

Edward Carroll