

Nathusius' Pipistrelle Survey

Unless you are a relatively new member of Surrey Bat Group you will remember the Bechstein's Bat Survey and the 2013 Woodland Bat Survey, the latter focussing particularly on small *Myotis* species ("WABs" – whiskered/Alcathoe/Brandt's bats). These involved the use of harp traps and acoustic lures (recordings of ultrasonic bat calls). This summer we are taking part in the Nathusius' pipistrelle survey which also makes use of harp traps and acoustic lures. Although we are now in early summer and much of the survey is still to be carried out there is currently a break in it to prevent disturbance over the birthing period. Hopefully a more detailed article will appear here after the end of the survey but for the time being, in the words of Gilbert White in his Natural History of Selborne, "the following remarks may not perhaps be unacceptable."



A ringed Nathusius' pipistrelle at Claremont Landscape Gardens, photo Derek Smith

This summer's survey is a pilot study involving a small number of bat groups, project leaders being Daniel Hargreaves and the Bat Conservation Trust's Kate Barlow. Ross Baker and Lynn Whitfield received training and have the necessary licences not only to use the harp traps and lures but to ring any Nathusius' pipistrelles caught and to take fur clippings from any pipistrelles.



Nathusius' pipistrelle showing the ring on the forearm with the wing open as it has its fifth digit measured, photo Derek Smith

In mainland Europe *Nathusius' pipistrelle* is known to be a long range migrant (its hibernation and breeding sites being hundreds of kilometres apart) but its migratory status in the UK is unknown. The fur clippings will be used in stable isotope analysis by Fiona Matthews of Exeter University to inform on the geographic origins of the bats. It is *Nathusius'* which is of particular interest but the two commoner pipistrelle species are also being investigated in this way.

(A *Nathusius'* pip which Daniel ringed at Blagdon Lake, Somerset, 14th October 2012 was found in a farm building in Holland 23rd December 2013, a straight line distance of 596 km. See the Bat Conservation Trust press release: http://www.bats.org.uk/pages/amazing_journey_for_a_tiny_bat.html)

In this pilot study participating bat groups are trapping at four main sites once a month with an option to trap at other sites if desired. Sites chosen should have a body of water, woodland and a previous record of *Nathusius' pipistrelle* from echolocation calls or other evidence. Surrey's four sites are at Claremont Landscape Gardens, Esher, and at sites near Haslemere, Dorking and Frimley. To date trapping has been done twice at three of the main sites, once at the fourth and once at an extra site. Bat group members have been able to attend the trapping sessions with twenty people so far having taken the opportunity to join Ross and Lynn on at least one occasion.

With the acoustic lure (we are using AT100 lures rather than Autobats) set to emit a *Nathusius'* call lots of the two commoner pipistrelle species (common and soprano) have been caught: 77% of total bats caught. (Actually as the total number of bats caught is 98 the percentage is approximate – 98 is near enough 100 for me but if you want decimal places work it out yourself.) There have been seven *Nathusius'* caught: one at the first of two Dorking sessions, four at the first Claremont session and two at the second. All *Nathusius'* caught so far have been males.



At the Haslemere site Phill Elliott prepares to transfer the fur sample Ross is clipping to an envelope, (Derek Smith's tribute to Caravaggio)

If you're keeping up you will have worked out that fourteen bats of other species have been caught. One might expect Daubenton's bats at sites chosen specifically for their proximity to water and three have indeed been caught. Four noctules have been trapped with the remaining seven being "small *Myotis*". As with the Woodland Bat Survey last summer, identification of small *Myotis* is done with caution and the bats are placed

in new bags in the hope of obtaining droppings to be sent off for DNA analysis to confirm the species. One whiskered bat was found at the Dorking site and one at Claremont.



A pipistrelle having a sample of fur taken and a noctule, photos Derek Smith

The results of the Woodland Bat Survey in Surrey were in the last newsletter so you may remember that only one *Alcathoe* was found (and that on one of the few sessions when I was not present!). This year I have only attended three of the eight sessions, two of which were at the Haslemere site. The first one was on a cold night (around 10°C which doesn't sound *that* cold but when you're sitting about most of the time you can get quite chilled) and we only caught one common and five soprano pips. The second session took place on a milder evening and although no *Nathusius*' appeared we caught six soprano and eight common pips, one *Daubenton*'s, one noctule and no less than five small *Myotis*. All had a short forearm length (ranging from 31.6 to 32.5 mm) and had pale facial skin and were considered to be *Alcathoe*. Three were males and two were females, both judged to be pregnant.



*One of the Haslemere *Alcathoe* bats, photo Derek Smith*



Dorking whiskered bat, photo Ross Baker

Frustratingly we have heard that no positive DNA identifications were made from the small *Myotis* droppings which were sent for testing.
Derek Smith