

BAT RECORDS

Don't forget to pass on all your bat sightings to George Burton, Warks Batgroup's Records Officer. Included with this newsletter is a copy of a recording form. Send your records to:

Roost Records, Melrose, North Street, Marton, Rugby, Warks, CV23 9RJ. records@warksbats.co.uk

If you have access to the internet then you can enter the information directly at the Warwickshire Batgroup's website <http://www.warksbats.co.uk> Click on the 'record entry form' link in the menu on the left hand side of the page.

THE 'E'CHO

If you would like to receive a colour copy of the newsletter then drop me an email: newsletter@warksbats.co.uk

THE CALL OF THE WILD

The University of Sussex has its own Bat Research Group and their mission is to "develop and apply methods for the study of bat behaviour and ecology in the field". They focus primarily on woodland bats in the UK and Japan.



To study woodland bats they have devised a programmable ultrasound synthesiser called an "AutoBat" that is designed to imitate bat social calls. Their main use of the AutoBat as an acoustic lure has been to survey woodlands in the south of England for Bechstein's bat, which has been described as one of Britain's rarest mammals. This woodland

specialist is extremely difficult to detect using other methods. It rarely emerges from the woodland interior and its echolocation calls are very quiet. Even when detected, the calls may be difficult to distinguish from those of other *Myotis* species, making it impractical to survey for Bechstein's using bat detectors. This species is also relatively difficult to catch, as it does not use flyways as frequently as many other species.



(1) D140 bat detector (2) tape recorder (3) "black box" (4) battery



They replicated a Bechstein's social call and have found that the bats are strongly attracted to the calls. Using this new piece of technology as a survey tool, they have more than doubled the number of known maternity colonies of Bechstein's in Britain in less than two years.

But it is not only Bechstein's that are attracted to the calls. They also attract a great variety of other bat species with Brown Long-eared and Natterer's responding particularly well, although Natterer's are frequently able to avoid the mist nets the scientists set up. They are continuing to develop the system to increase the range of species the device can attract, and the degree of accuracy with which it can attract one particular species.

As well as attracting bats, they found that synthesised social calls can also elicit a vocal response from certain species. A pilot study of the Little Tube-nosed bat (*Murina ussuriensis*) in the south of Japan has shown frequent vocal responses to a synthesised version of their social call. Oddly, all the individuals captured using the AutoBat were female. Future work combining the AutoBat and radio-tracking aims to establish whether males respond

to the calls by moving towards or away from them, or whether they just ignore it.

The 'official' name of the AutoBat is the AUR or Automated Ultrasound Recorder. The AUR differs from most other automated bat detection systems in that it uses a broad-band detector, which preserves the key acoustic parameters of the calls for later analysis. The bat detector used in the AUR is the Pettersson D140 switched to time-expansion mode. When the system is triggered by ultrasound the detector records for 870 milliseconds. The time-expanded recording is then downloaded onto a Sony Walkman (WM-D6C) cassette tape recorder, along with a time signal indicating when the unit was triggered. Recorded calls can be analysed using BatSound (Pettersson Elektronik), or other sound analysis software.

The AUR has already been tested in the field as part of a DPhil research degree by Patrick Fitzsimons at Ebernoe Common in West Sussex. AURs were used to quantify differences in bat activity in various woodland habitat types, assess differences in bat activity at different heights in the canopy, to record calls outside Bechstein's maternity roosts. The paper describes a radio-tracking study of foraging areas and day roosts used by female Bechstein's bats (*Myotis bechsteinii*) in a maternity colony during the summer of 2001. The data suggest that female *M. bechsteinii* at the study site forage throughout the night and partition the habitat into small individual foraging areas (mean 1.2 ha) to which they return on consecutive nights. Two main day roosts were used during the study period, but at least eleven other roosts were also used. Commuting distances between roosts and foraging areas were short with a mean of 0.7 km.

The full paper is available for download from:

<http://www.lifesci.sussex.ac.uk/research/sbrg/radio-tracking%20Mb.doc>

JUST SAY NO!



I would urge anyone with computer access to sign a petition that Bat Conservation International have organised. The idea behind the petition is to pressure the online trading organisation eBay to stop allowing the trading of stuffed

specimens of bats. Both eBay.com and eBay.co.uk have stuffed bats for sale.

<http://www.petitiononline.com/bat33345/petition.html>

“Currently on eBay, a number of users are selling so called ‘taxidermy bats’ to the general public. The vast majority of these ‘taxidermy’ bats come from Thailand/Vietnam etc and are not ‘true’ taxidermy ‘finds’ at all, instead animals that are killed to order and imported en masse into the United States and United Kingdom amongst other countries to be sold as ghastly, grotesque stuffed exhibits by the crateload.

The people they are selling these specimens to are being hoodwinked. Most of these eBay-ers boast about the rarity of the animals they’re exhibiting and keep selling the exact same species over and over, making a mockery of the claim they’re taxidermy animals, that is they’ve died of ‘natural causes’.

When an attempt is made to contact eBay, getting hold of a direct email address for their customer services department, rather than making a specific complaint about one particular item number is a chore.

We the undersigned demand eBay take moral and ethical responsibility for bats and make a stand against the needless slaughter of these beautiful animals, instead of relying on CITES protection and legislation for a select few.

We request eBay consider the fact that there’s a high probability these bats are being advertised falsely by the definition of a ‘taxidermy animal’ and ask them to consider if these sellers can produce certification and proof of where the animals died, the cause of death and all the permits and legal documentation allowed to even be selling taxidermy animals in the first place

Bats breed very slowly and need all the protection they can receive. Bats are one of, if not the rarest class of mammals in North America. We ask that eBay show compassion and support in their protection, and do more to help these beautiful, unique species.”

PLAY DEAD



One of the recent members to Warks Batgroup is a Dr Jon Russ who has a special interest in Nathusius’ Pipistrelles and has built a website all about them (<http://www.nathusius.org.uk>). We were delighted when he offered to give us a talk all about them to coincide with our AGM and a walk around Coombe Abbey Country Park.

Back in August 1997 when he was a student Jon was doing bat surveys in Northern Ireland when he thought he heard a Nathusius’ Pipistrelle. However, he had trouble convincing other batworkers of his unusual find until a fellow batworker came across a grounded Nathusius a month later. Another breakthrough came when a large roost of 150 or so Nathusius’ Pips was found at Clotworthy Arts Centre in Antrim. In fact the National Bat Conference 2000 that was held in Belfast offered a visit to this roost for its traditional Friday evening outing. These bats must have some very contemporary tastes as the Centre has a rehearsal room that hosts some very loud rock bands!

This roost was the most westerly breeding site in the UK and with only 5 sites known to date the Nathusius is the UK’s rarest breeding bat.



The first UK Nathusius’ Pipistrelle record was actually made in 1940 in Walsay in the Shetland Islands but was misidentified as a Common Pipistrelle. Gradually a smattering of records began to build up and its status changed from vagrant to migrant winter visitor to breeding colonies.

To try and expand the records Jon sent a questionnaire to all UK batgroups and found that the Nathusius was cropping up from Shetland in the north to the Channel Islands in the south with even some bats turning up on oil rigs in the North Sea. Most of the records, apart from local hotspots, start to increase in number towards the south-east towards continental Europe.

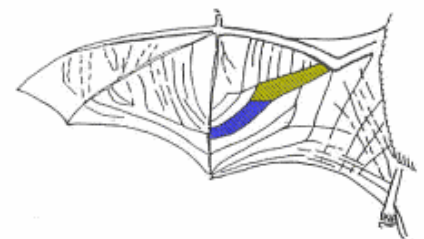
One interesting statistic is a bi-annual peak of grounded Nathusius in April and then again in October, with the October numbers being double those found in April. These groundings occur at the same time that Nathusius’ bats are known to migrate on the continent and so it suggests that the UK bats may also

migrate. This behaviour makes this species of Pipistrelle different to the Common or the Soprano as it is thought that they are largely sedentary.

Another difference is that male Nathusius’ Pips attract females with mating calls when they are not flying. They can sit in a building and serenade their prospective mates for hours. This must use up a lot of energy and the other Pips only send out their ‘love songs’ whilst flying, using the rhythms of their flight to supply some of the energy of the calls. Nathusius’ also tend to “play dead” when grounded or caught, something that Common Pips do but not as often.

Physically, Nathusius’ is larger and shaggier than our other Pips and has face markings between that of the black-faced Common and brown-faced Soprano. Being bigger it has a larger forearm and 5th digit measurement. (In scientific terms the ratio of its 5th digit to its forearm is greater than 1.23). If you want to get really intimate then its second premolar is also larger.

Interestingly, its wing vein pattern is also distinct.



The key cell is the one that stretches from the elbow to two-thirds of the way down the 5th digit (shaded). In Nathusius’ Pipistrelles, this cell is divided halfway, whereas in the other species of Pipistrelle it remains a single, unbroken cell.

Sound-wise, Nathusius’ calls are similar to other Pips but have a peak frequency at 37-39 kHz and its social calls have a very obvious trill at the end when analysed with a time-expansion bat detector.

Nathusius’ Pips do share some common ground with other Pips, as like Soprano Pips they like to feed around lakes. This may be why the two species have been found roosting in the same buildings. In the hand they all give out similar-sounding distress calls which other bats respond to. For, if the ‘SOS’ calls are fed through a loudspeaker other bats will actually mob the sound source.

One particular question that Jon would like answered is - Is this species extending its range? So far there have been no definitive records of this species in Warwickshire. However, that doesn’t mean they aren’t here. So, keep your detectors at the ready, you never know what you might come across.

BAT DETECTOR CALIBRATION

I came across this little snippet on the website of Durham Batgroup.....



How to check your detector.....

What you need is an ultrasonic sound at a precisely known frequency. Calibration standards aren't easy to find, but fortunately most of us already have equipment that can do the job in our own homes! A quartz digital watch or clock uses a crystal oscillator running at 32.768kHz and this can often be picked up if you hold the detector very close to it. Slowly increase the frequency from the minimum setting. You will hear a high pitched tone, decreasing to nothing, then increasing again. Tune for the lowest tone. Above 32.768kHz you will hear all sorts of whistles but these aren't much use.

To calibrate your detector you need more than one frequency standard. To start we can use the digital clock as described above. This gives us one point. Now turn on the telly. Turn the sound right down, so you can hear the detector. The television uses a "line scan" frequency of 15.625 kHz. Your detector won't pick this up - but it may pick up signals at 31.25kHz and 46.875kHz. Note where these whistles fall on the dial of your detector.

Another way is to use broadcast radio signals. You may be lucky enough to have a detector that will pick up the time signals from the RUGBY transmitter at EXACTLY 60kHz. Failing that you can use a radio with a long wave band. Tune it to 160kHz and bring your detector near it. You should pick up the signal from your detector as a whistle on the radio. Tune for a null and your detector is set to 160kHz - note the setting on the dial. For greater precision tune to a station and look up its frequency. Then tune over it with your detector. When you have marked where all of these points fall you will have a much better idea of the frequencies that the dial on your detector shows.

Here's a great utility! USonic, a freeware MS-DOS based utility for generating ultrasonic tones using the PC's built-in speaker. Written by Joost Ruijsch. (USonic is available to download from the webpages of Durham Batgroup <http://www.durhambats.org.uk/calibrate.html>



John "computer-whizz" Waller has had a quick play

At first I was surprised that an old MS-DOS utility worked on modern systems like Windows XP, but then I found that it wasn't actually very useful on all the computers I tried it on. Unfortunately I couldn't generate any signals audible with a bat detector above 20kHz. As this is usually right at the bottom end of the range of most bat detectors it doesn't really provide more than one frequency standard. However you might get better results with your computer and bat detector.

BAT-PIPES

Batty staff at Severn Trent Water have come up with an ingenious idea to help the dwindling bat population. The water company is recycling some of its redundant water pipes to make homes for bats to roost in at its sites across the Midlands.



Like many other once common mammals bats are in decline due to loss of suitable habitat. Their preferred summer roosts are in hollows or crevices found in trees and Severn Trent is adapting redundant pipes to mimic these natural conditions.

Colin Green, Severn Trent's environmental adviser says "The idea struck me when I came across some old pipes standing up in one of our stores. They're hollow like a tree trunk and also the same shape. To us they're just redundant pipes but to a bat they're a safe, protected site for roosting.

"It's a relatively simple job to transform the pipes into ideal roosting sites, all we've done is cut a horizontal slot

approximately 2 inches wide, a bit like a letter box, near the top of the pipe, that the bats can fly in to. We've also put mesh inside the pipes so the bats have something to cling on to."

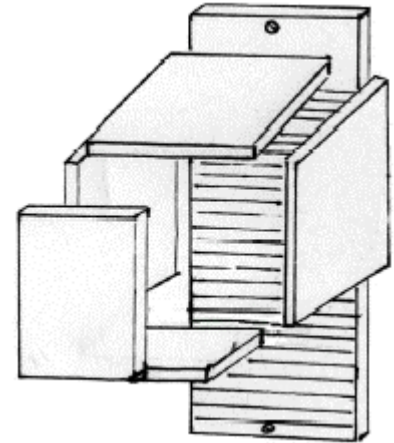
One of the most common bats found flying around our homes and over our gardens is the Pipistrelle Bat which has seen an estimated 70% drop in population between 1978 and 1993. Bats are one of the best pest controllers we've got and have been known to consume over 3,000 flying insects in one evening.

Colin says: "The back garden in one of Britain's biggest nature reserves yet is often forgotten in terms of helping the environment and wildlife. By encouraging bats into your own garden you can create your own living breathing insect controller at home. If you would like to make your garden a bat friendly area, and help

improve the survival of this creature, then why not have a go at making your own bat box."

Severn Trent has provided a fact sheet on bats which includes drawings and information on how to make your own bat box. The fact sheet can be downloaded from

http://www.stwater.co.uk/upload/pdf/Summer_House_for_Bats.pdf



Or you can telephone 0121 722 4121 to receive a copy in the post.

DIARY

If you know of any batty events then please send me the details and then I can include them in the next issue as well as on Warks Batgroup's website: <http://www.warksbats.co.uk>

Bat Walk
Charlecote Park (National Trust)
Friday, 3 June 2005 21:30 - 23:00

Join us to find out more about these fantastic creatures. Led by John Waller of Warwickshire bat group. Organised by The National Trust, Charlecote Park. Advanced booking essential, contact 0778 865 8495.

Bat Walk
Charlecote Park (National Trust)
Saturday, 4 June 2005 21:30 - 23:00

Join us to find out more about these fantastic creatures. Led by John Waller of Warwickshire bat group. Organised by The National Trust, Charlecote Park. Advanced booking essential, contact 0778 865 8495.

"Bat Mad"
Draycote Water Country Park
Friday, 10 June 2005 20:30 - 23:00

This starts another season of popular bat walks and talks. Meet at the new visitor centre entrance. Organised by Severn Trent Water. Booking essential on 01788 811107 £2 per person

"Let's Go Batty Again!"

Coombe Country Park

Saturday, 11 June 2005 21:00 - 22:30

Another evening walk discovering the variety of bats that live in and around the park. See what supper treats bring them out at this time of night. Organised by Coombe Country Park rangers. For bookings and more information phone (024) 7645 3720. £1.50 adults £1 children and passport to leisure and learning

Bat Sunset/Sunrise Survey

23 - 24 July 2005

(or within 3 weeks around these dates)

There are two parts to this survey. You can take part in either survey or both, but the more help you can give us, the more chance you have of finding bats.

The **Sunset Survey** couldn't be easier! Simply spend the evening in your garden and watch out for any bats that fly past. Record how many bats you see, which species they are (if you think you know) and, most importantly, which direction they are flying from.

The **Sunrise Survey** involves going out just before dawn to look for bats swarming before they return to their roost. If you have already done the Sunset Survey and saw bats flying past, you should walk in the direction from which most of them seemed to be coming.

This survey is aimed at beginners and is an excellent way of contributing to the monitoring programme if you don't have any previous experience of bat surveying.

nbmp@bats.org.uk

http://www.bats.org.uk/nbmp/nbmp_survey_sunrise.asp

<http://www.bats.org.uk/downloads/nbmp/fromdusktodawn.pdf>

Tel: 020 7501 3622

Bat Walk

Dorridge Park

Tuesday, 26 July 2005 20:30 - 22:00

Children and adults alike are enthralled with these creatures especially when tracking them down in the park - it's all made easier with a detector. This family bat walk is courtesy of Solihull Metropolitan Borough Council (events webpage). Contact details: email park events Tel: 0121 704 6503. Meet in the car park. Free.



Bat Walk

Babbs Mill LNR

Tues, 9 August 2005

20:30 - 22:00

Another opportunity to go on an evening walk to learn about bats. This family bat walk is organised by Solihull Metropolitan Council. Tel: 0121 704 6503. Meet in the Youth Afloat car park. Free.

"Lets go Batty!"

Bedworth Sloughs

Friday, 12 August 2005 20:30

Join enthusiasts from Warwickshire Bat Group, and first timers alike, on this dusk and evening meander in search of our little ultrasonic friends! Keep your eyes peeled! This is one of our most popular events so booking is essential. Please bring a torch if you have one. Meet at Bedworth Sloughs, entrance adjacent to 225 Newtown Road, Bedworth. Organised by Nuneaton and Bedworth Borough Council Natural Environment Team (024) 7637 6494/6557

"Bats"

A talk and walk

Brandon Marsh Nature Centre

Sat, 13 August 2005 18:30 - 22:30

Find out about British bats, what they eat, how they find their food, where they live and how we can help them. This walk/talk will be led by Rob Hunter and Dot Jeffcott of Warks Bat Group and is organised jointly by Warwick University and Warks Wildlife Trust. This is one of a series of "day" schools to tie in with a new BBC series on natural history Book early as numbers are limited. Contact WWT on 024 7630 2912 (office hours).



"Batty Homes"

Ryton Pools Country Park

Sat, 13 August 2005 13:00 - 15:00

Bat boxes provide a great place for bats to roost - so build a home for the bats in your garden. Meet at the Visitors Centre. Organised by Warwickshire County Council. Booking essential on 024 7630 5592 (£2.50 per box)

"Go Batty"

Kingsbury Water Park

Mon, 15 August 2005 13:00 - 14:30

Follow the trail to learn about bats, play batty games and create some bat masterpieces to take home. For children aged 3 to 12 who must be accompanied by an adult. Meet at the Education Centre. Organised by Warwickshire County Council. Booking essential on 01827 872660. £2.50 per child.

Bat Night

Kingsbury Water Park

Wed, 17 August 2005 20:30 - 22:30

Find out about bats. A short talk followed by hot jacket spuds in The Old Barn Coffee Shop, then a walk to detect some bats. Bring a torch. Meet at the Information Centre. Organised by Warwickshire Country Parks. Booking essential: 01827 872660. Cost: (includes food): Adults £4, under 16s £3.50

Bat Walk

Elmdon Park

Tues, 23 August 2005 20:30 - 22:00

Learn more about this nocturnal creature living on your doorstep with expert tuition thrown in for free. This family bat walk is courtesy of Solihull Metropolitan Borough Council (events webpage). Contact details: email park events Tel: 0121 704 6503. Meet in the car park, sensible shoes recommended. Free.

Bat Night

Babbs Mill LNR

Wed, 24 August 2005 19:30 - 21:30

An evening stroll to see these fantastic flying creatures at work as dusk turns into night. This bat walk is organised by Project Kingfisher. Tel: 0121 464 3131. Meet in the Babbs Mill car park. Please book your place(s) in advance. Free.

National Bat Conference 2005

York University

Friday, 2 - Sunday, 4 September 2005

Bat Walk

Charlecote Park (National Trust)

Fri, 9 September 2005 19:30 - 21:00

Join us to find out more about these fantastic creatures. Led by John Waller of Warwickshire bat group. Organised by The National Trust, Charlecote Park. Advanced booking essential, contact 0778 865 8495.

Bat Walk

Charlecote Park (National Trust)

Sat, 10 September 2005 19:30 - 21:00

Join us to find out more about these fantastic creatures. Led by John Waller of Warwickshire bat group. Organised by The National Trust, Charlecote Park. Advanced booking essential, contact 0778 865 8495.

Scottish Bat Conference

Sunday, 27 November

The Scottish Natural Heritage

Battleby Centre (3 miles north of Perth).

The charge for attending the day is £20.00. Cheques should be made out to The Bat Conservation Trust. If you would like to attend, please complete the booking form and return it FAO Anne Youngman by 5th

November. (Forms can be downloaded from the BCT website or from Anne Youngman, The Bat Conservation Trust, Balallan House, 24 Allan Park, Stirling, FK8 Tel: 01786 447144, 2QG.)



The next issue of the Echo is out on 1st September. If you have any batty stories, anecdotes, interesting articles, research news then please send me the details so I can include them in the next newsletter.