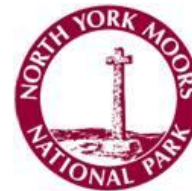


# Bat Conservation Trust



North of England Bat Conference, 21<sup>st</sup> March 2009  
Trinity and All Saints College, Leeds

## Abstracts and Workshop notes



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## **1. New information from old data: What we can learn from long-term bat monitoring?**

Emma Rigby, University of Leeds

### **1.1 Abstract**

Improvements in mark-recapture software over recent years have allowed far more accurate estimation of population parameters (e.g. survival, recapture and movements between sites or reproductive states) in wild populations than have previously been possible. These can be used to provide more detail on how bat colonies interact with each other and their environment, and how they are affected by potentially damaging events such as floods or road building. These types of analyses are dependent on the quality of the datasets used, with long-term ringing studies proving ideal.

This talk provided a brief overview of the analyses we are currently doing on such datasets, emphasising the need for sharing data in order to fully exploit the information that can be obtained.

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## **2. What echolocation can tell you, plus new approaches to recording and interpretation**

Chris Scott, University of Leeds

### **2.1 Abstract**

The recording and subsequent analysis of echolocation calls is an integral part of a wide range of bat studies. A limiting factor in surveys and research remains our inability to distinguish between species reliably from their calls. There is considerable potential for acoustic species identification, however the situation is complex; bats facing similar ecological constraints exhibit convergence in call design, and some species display significant variation in echolocation call structure. Opportunities to verify identifications are severely limited, and recent research suggests that when relying on our own powers of discrimination, we may not pick out species from their calls with the accuracy we previously thought. Whilst quantitative methods of identification exist (e.g. discriminant function analysis), allowing repeatability and reducing the risk of misclassifications, such methods are not accessible to the majority of bat workers conducting acoustic surveys. My research at the University of Leeds is investigating simple automated methods of identification, including the use of Time Domain Signal Coding (TDSC), a novel technique for analysing audio signals. A reliable species identification tool for bats incorporating a user- friendly interface is proposed.

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## **3. The National Bat Monitoring Programme: North of England**

Phil Briggs, Bat Conservation Trust

### **3.1 Abstract**

The NBMP is now showing significant UK trends for a number of species found in the North of England. However an examination of regional trends has indicated significant differences in trends between the North and South of the UK. Therefore the UK trends may be masking very different regional trends. Better survey coverage is needed in many regions in order to enable the

delivery of regional trends. The survey site distribution maps show sites surveyed in the last few years (red dots) and lapsed sites (white dots) which need allocating to new volunteers. The maps also reveal geographical gaps in the NBMP coverage where it would be good to set up new survey sites for continued future monitoring. If anyone would like details of sites near them that need revisiting, or advice on establishing new survey sites in under-represented areas, please email the NBMP team at [nbmp@bats.org.uk](mailto:nbmp@bats.org.uk).

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#### **4. The River Colne Project**

Mick Smith, River Colne Project Officer

The River Colne Project has have been busy this winter and spring working with volunteers and the West Yorkshire Bat Group delivering the woodland management of the of Bats and the River Colne project. We have pollarded some beech and sycamore trees and ring barked them to provide standing dead wood in a woodland just outside Slaithwaite. All of the trimmed branches have been left within the woodland creating further opportunities for insects. We have also added innovative features to these standing trunks to speed up decay and increase roosting opportunities, these included creating 4 integral bat boxes and making fissures and cracks. This aerial tree work compliments the previous woodland management and has created a sunny glade in a once dark empty area of the woodland dominated by beech trees.

The team has also planted 800 trees and locally grown wildflowers (within 5 miles) which has improved the woodlands structure. In addition we have created linking hedgerows joining other fragmented woodlands and installed 50 bat boxes, including 4 large hibernation boxes that have been erected on prominent buildings in Slaithwaite village. One of which has an infra-red camera, so that when it is being used we will be able to film the bats and put short films on our website.

Planning permission for the Bat Tower, the focal part of this bat conservation project, has been received and the technical drawings have been received. The design is inventive and some have said ground breaking, no other buildings have been built like this to accommodate bats and we are looking forward to an exciting summer watching it take shape. We are aiming for completion in September and I am organising a day of Batty activities for the launch of the Tower and hoping to get a mystery guest to open it!

The project has been a real success so far, lots of interest in it and a sense that we are making a difference to the conservation of bats in West Yorkshire.

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#### **5. Grounded bats, bat group programmes and roost visitor licence training: organising for bat care**

Maggie Brown, West Yorkshire Bat Group (WYBG)

##### **5.1 Abstract**

You may not see the connection between grounded bats, bat group programmes and roost visitor licence training, or even have an interest in all three. However, many bat groups are trying to balance these activities and feel there isn't sufficient time to deal with all of them and further that each activity can get in the way of the others.

Maggie's talk looked briefly at each of these issues (grounded bats, bat group programmes and roost visitor licence training) and explained how and why WYBG set about managing them.

*Grounded bats* – bat rescue is often the public face of bat conservation. The majority of calls from the public are related to grounded bats. The public expect them to be rescued and we miss a real opportunity to educate people if we don't respond appropriately, not to mention the negative effect of not handling these calls very well. Maggie gave examples of why bat care has kept her interest over the last 20 years.

*Bat group programmes* - bat groups have been set up to provide local support, via local organisation and training for bat enthusiasts. Although many bat groups run bat talks and walks for the general public, bat groups members also need activities for themselves, doubtless that's why many joined the bat group in the first place. The bat workers manual lists training for members as one of the purposes of bat groups.

*Roost Visitor Licence training* - there seems always to have been a shortage of local trainers in the North of England and lots of people have criticisms of the way the training system is working.

WYBG, lead by John Gregory (a new trainer in West Yorkshire), initiated the bat care scheme as a way of giving practical experience in handling bats to roost visitor trainees, by making the most of overlaps between bat care training, existing bat group programme activities, and roost visitor training.

By next year, thanks to John's hard work, the WYBG expects to see:

- better management of bat casualties
- a strong and active bat group membership
- ongoing training in bat rescue and conservation
- more members preparing for roost visitor licences
- new records of bat distribution obtained from grounded bat records.

## **5.2 Workshop**

Stages of development of the West Yorkshire bat care scheme:

- Initially a small working group was set up (4 people) by the WYBG including Maggie, who was co-opted for her experience.
- It was decided to restrict the scheme to adult injured bats initially, hopefully most of which would be releasable in a short time or which would be put down because of their problems. (Baby bats could be passed on to more experienced carers after an initial attempt to return them to their mothers, as could longer term problems.)
- A training course of three meetings was prepared by the steering group to cover health and safety, initial contacts with finders, initial assessments of casualties, first aid, temporary care, release, euthanasia and submitting bats for rabies testing.
- Interested parties were invited to a preliminary meeting where the proposal for the scheme was part of the programme. Afterwards people were invited to join the training scheme on condition that they were vaccinated against rabies and would commit themselves to the complete training course. In return they received training and funding for basic equipment.

- The training provided part of the programme for 2008 and the scheme became live in March 2009 using a dedicated call minder phone number manned by seven volunteers, one for each day of the week. Information about this number is being sent to all vets in the county and other appropriate centres.
- Recording sheets for calls and casualties were produced for all participants.

Question posed: Our bat group has only a couple of individuals and they couldn't provide a rescue system.

Suggestion: Try advertising a potential course using the WYBG method and inviting members of parallel organisations - like countryside rangers and vet nurses, if necessary getting someone with more expertise in to run the workshop. WYBG had extended their active membership by this method.

Question posed: Why doesn't BCT pay travelling expenses for collecting injured bats?

Discussion summary: There was some resentment that BCT, having taken over the Natural England contract from John Drewett and Liz Higgs, were not prepared to pay expenses for collecting injured bats. I (Maggie) tried to explain that there is a historical reason for this - that English Nature, and before that the NCC, never paid expenses for what they classed as 'welfare' problems (grounded bats), only for 'conservation' problems, that is supporting roost owners where colonies were causing problems.

However, sometimes a couple of babies are the beginning of a bigger problem. In such cases, the roost owners are not usually aware that they have bats and are entitled to advice about having a roost - how else can they be expected to accept and understand the needs of the bats? They may not have asked for a licensed roost visitor, because their immediate problem was the babies. Would they have been treated differently if they had rung BCT and asked to have bats removed from their property?

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## 6. Who Dares Wins – Bats in urban areas

Pat Waring [pat@ecologyservice.co.uk](mailto:pat@ecologyservice.co.uk)

### 6.1 Abstract

Carrying out conservation work in urban and urban fringe areas can be very challenging. The extent of urban influence (for example, as shown on maps produced by CPRE <http://www.cpre.org.uk/library/results/intrusion>) is particularly noticeable in northern England.

Bat groups provide a very important role in dealing with urban bat issues, but they cannot cover all aspects; for example bat groups may be more restricted when bats are associated with non-dwelling houses. Examples given during the talk were mills, swimming pools, leisure centres, allotments and bridges.

The value of urban areas for bats has been proven by a number of studies in northern England:

- Maggie Brown's MSc – looking at bat activity in a range of habitat types in Otley, West Yorkshire
- John Gregory's interest in Leisler's bats in West Yorkshire
- Mandy Elford's university project on pipistrelle roosting habits in Greater Manchester

We also know from observations across the UK that a range of bat species are found in urban areas, including serotine and Bechsteins. We should not discount the possible appearance of previously unrecorded species in urban areas. The example was given of serotines being found at a number of sites in Cheshire in 2008.

Studies from continental Europe have shown that pond bats occur along canal corridors in the Netherlands (<http://www.altwym.nl/modules/Bestanden/files/225Lutra%2051-1%20Kuijper%20et%20al.pdf?PHPSESSID=563e64ada1bd2276ca1dd8ca4bbeba78>)

A number of significant limiting factors are associated with urban areas, including artificial lighting and wind turbines.

Urban areas also offer some very positive opportunities; for example, most people live in urban areas – this presents an opportunity to reach a large audience very efficiently

Other positive aspects related to bats in urban areas are:

- The fact that bat boxes offer an attractive, cheap and efficient way of helping people to engage with bat conservation
- The fact that information about bat conservation in urban areas is easily accessible over the world wide web e.g. [http://www.lbp.org.uk/downloads/Publications/Management/bat\\_roost%20creation\\_in\\_GL.pdf](http://www.lbp.org.uk/downloads/Publications/Management/bat_roost%20creation_in_GL.pdf)
- The fact that soprano pipistrelle, brown long eared and noctule bats have been added to the BAP Priority List (<http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/prioritylist.aspx>)

## 6.2 Workshop

The workshop was designed with two specific things in mind:

To produce a list of bat species found in urban areas, along with their associated roosting features; and

To review examples of mitigation practices.

Bat species recorded by workshop participants in urban areas were as follows:

Brown long-eared	Whiskered
Leisler's	Common pipistrelle
Noctule	Soprano pipistrelle
Daubenton's	Brandt's
Natterer's	

In other words, all of the species likely to be encountered in northern England. One message from this was that bat surveys should be organised with the likelihood of encountering all the above species in mind.

Mitigation examples were briefly reviewed and included:

- Adding pitched roofs to existing flat-roofed buildings
- Building bat towers as stand-alone, dedicated features
- Provision of access points to closely reproduce those in existing roost buildings
- Provision of different types of bat boxes, especially integral wall boxes
- Management of lighting and use of light meters as a standard in all surveys



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## 7. Bats and Planning

Robert Masheder, (Senior Ecologist, West Yorkshire Ecology)

### 7.1 Abstract

West Yorkshire Ecology (WYE) is the ecological records and information service for West Yorkshire. A key role of WYE is to provide nature conservation advice to the forward planning and development control teams of the five districts of West Yorkshire. This function includes advising planners on the need for a bat survey planning applications. With around 400 planning applications per week requiring assessment, WYE looked to ways in which the process of assessing the need for a bat survey could be improved. WYE came up with the 'Bat Alert Layer', a map that highlights areas where there is a 'reasonable likelihood' of bats being present, based on the "*Bat Surveys – Good Practice Guidelines*" Bat Conservation Trust (2007). This map is accompanied by an additional layer which shows the locations of known bat roosts, as well as a flow diagram that allows council planners to assess whether a development has a reasonable likelihood of affecting bats. Providing planners with the tools to make this assessment has meant that bat surveys can be requested at the earliest possible stage.

In conjunction with the five district councils of West Yorkshire and Natural England, WYE has also developed 'Minimum Standards for Bat Surveys in West Yorkshire'. These were developed in order to encourage a reasonable standard of bat surveys and report writing, in order to:

- ensure that adequate information is available to make planning decisions;
- provide a level playing field for bat consultants;
- help bat consultants in discussions with clients regarding scope of work required;
- help applicants to understand what is required for planning;
- avoid being overly prescriptive; and
- ensure that appropriate mitigation is proposed when a definitive outcome is not reached.

### 7.2 Workshop

It was not surprising to find that the concept of the 'Bat Alert Layer' had also been considered in other parts of Northern England, with South-Tyneside developing a similar system within their local council.

The size of the alert layer (i.e. 200m from significant water and woodland features) was questioned by a number of participants. A member from Greater Manchester stated that about 80% of roosts occurred within 500m of habitat features, however was unsure of the percentage within 200m. It was also suggested that having larger buffers in rural areas and smaller buffers around urban sites may improve the hit rate on roosts.

It was admitted by WYE that the alert layer falls short of the specifications set out in Box 2.1 of "*Bat Surveys – Good Practice Guidelines*" Bat Conservation Trust (2007). This was mainly a political decision to only cover areas that have the highest likelihood of bat presence as too large a buffer may result in too many inappropriate surveys, leading to a possible discrediting of the alert

layer. The flow diagram that accompanies the alert layer does however close some of the gaps by triggering the need for bat surveys for structures including agricultural buildings, underground structures, quarries, caves and bridges, even when such structures occur outside the Bat Alert Layer.

It was also noted that Bat Alert Layer and its associated flow diagram did not consider building age in the way that the good practice guidelines did. A general agreement was reached that as bats are known to exist in buildings of any age that this was perhaps not an essential consideration.

The 'Minimum Standards for Bat Surveys in West Yorkshire' seemed to be well received by the participants of the workshop. A particular topic of interest, that the minimum standards aims to deal with, was the timing of work and in particular making an assessment on a property when bats are not active. The minimum standards state '*where survey limitations leave inconclusive results precautionary mitigation may be acceptable with the approval of the local authority ecologist*'. Whilst it was generally agreed that bat surveys should ideally be undertaken during the times when bats are active, where this is not done, mitigation would be necessary, with the level of mitigation dependent on the possible impacts, type of structure, opportunities for bats and surrounding habitat. Additionally, it was put forward that any mitigation that is recommended by the bat surveyor makes it much easier for councils to impose conditions on the development. A concern was raised that mitigation may be cheaper and therefore preferred by certain developers over paying for more time consuming bat surveys at an appropriate time of year. Robert Masheder asked the participants if they knew what the Natural England licensing department's approach was to issuing EPS licensing to exclude bats for the purposes of development. Nobody was aware of a NE EPS licence ever being refused.

A similar question was asked regarding what should happen when a building can't be surveyed in full. Hugh Firman (Calderdale Council & West Yorkshire Bat Group Chairman) responded: see if a data search reveals anything and take a precautionary approach, clearly stating the limitations and assess what needs to be done.