Bat Conservation Trust

Midlands Bat Conference
Saturday 12th March 2016

Programme

#MidsBatConf

08:45 Registration, teas and coffees

There will be five minute bat group 'spotlights' during Sessions 1-3

09:40 Session 1

- Welcome & Introduction
- An update on the work of the Bat Conservation Trust – *Joe Nuñez-Mino, BCT*
- Herefordshire bats & churches project – *Denise Foster, Herefordshire Mammal Group*
- Bat group volunteer, citizen science and the slippery slope into bat box research – *Peter & Emily Burke*

11:00 BREAK, TEAS AND COFFEES

11:30 Session 2

- Use of advanced bat survey techniques – *Ian Davidson-Watts, Davidson-Watts Ecology Ltd*
- Batty in Africa – *Helen Taylor-Boyd, Bats without Borders*
- The swarm: An annual gathering – *Steve Roe, Derbyshire Bat Conservation Group*

13:00 LUNCH

14:00 Workshops

15:30 BREAK, TEAS & COFFEES

16:00 Session 3

- Draw of raffle prizes
- Priorities in the Midlands and feedback to BCT
- Thanks & close

17:00 FINISH

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Abstracts of Presentations

Session 1

An update on the work of the Bat Conservation Trust – Joe Nuñez-Mino, Director of Communications & Fundraising, BCT

In this talk Joe will share BCT's recent work to speak up for bats, to change attitudes and influence decision making in policy and practice. (A written BCT Update is also included in the delegate packs.)

Herefordshire bats & churches project – Denise Foster, Bat Coordinator, Herefordshire Mammal Group

The perceived conflict between bats and churches has been highly prominent in the media for many years and we are all familiar with inflammatory headlines about bats having more rights to a church than the congregation and churches closed due to bat infestation. Historically bats have been associated with churches for centuries without causing conflict. However continuing habitat loss is increasing their reliance on church buildings and, at the same time, declining congregations have forced churches to seek new ways of using their buildings in order to remain both relevant to their local communities and economically viable. Such change of use is often incompatible with the continuing presence of bats within the building.

Since 2014 Herefordshire Mammal Group has been working closely with the Diocese of Hereford to assess the extent to which bats are using Herefordshire churches and the impact that they may be having on the local church communities. So far we have completed 61 surveys of the county's 247 churches and carried out more extensive surveys in 16 churches where significant bat populations were found to be using the buildings.

Only two of these churches are experiencing serious issues affecting worship - both due to maternity colonies of Natterer's bats - and the presence of bats in a third church is likely to disrupt plans for development. The Mammal Group has just won an HLF "Sharing Heritage" grant of £4900 to install bat and swift boxes in the seven churches so far identified, together with public outreach. This, together with suggestions of opening up non-sensitive areas, such as meshed towers and enclosed roof spaces will provide much needed accommodation for bats and swifts, as well as providing training and advice, and working with local people about these species. Churches will be closely monitored, especially in areas where barns and other agricultural buildings are likely to be converted in order to determine whether displaced bats are likely to use pre-emptive measures such as bat boxes instead of the church buildings.

Another important aspect of our work is to promote the Natural England Volunteer Bat Roost Visitor service where appropriate. So far we have carried out five VBRV surveys, all of which have been accepted by Natural England, saving churches a total of between £2250 and £3350 plus VAT. The Diocese has been very keen for our project to be extended to include their churches in Shropshire. This challenge is now being taken up by our neighbours in the Shropshire bat group.

Bat group volunteer, citizen science and the slippery slope into bat box research – Peter & Emily Burke

The talk begins with how ordinary bat group members evolved from doing a little volunteering into citizen science (through NBMP surveys and volunteer bat roost visits) into bat PR evangelists giving talks to thousands of people and appearing on TV. This has finally led on to becoming involved in bat box research to try and make a real difference to current knowledge about bat box use by different species. The moral being that anyone can make a contribution to our understanding of bats and expensive equipment is not needed to do it.

This research builds upon the current understanding of why bats select certain boxes in woodlands and combines it with what is known about natural roost selection. Data was analysed from 1,500 boxes across 47 sites in the Midlands. 900 boxes were selected for further investigation, variables that other researches had found significant for bat boxes and natural roosts were collected together with others that could be significant. In total 40 variables were recorded for each box. Tree density in the woodlands was assessed using the point centre quarter method along a random transect. Vegetation clutter was measured from 0 to 4 metres in height at evenly spaced intervals along the transect line to determine vertical clutter structure under the canopy.

For ten sites, trees were surveyed during the winter using binoculars to identify potential natural roost features. The distance of these trees to boxes was then calculated as these natural potential roost sites could act as seed points and sighting boxes near these may lead to greater occupancy.

To test if making changes to existing schemes would increase usage by bats 6 sites were selected for slight modification. Here changes were made to the habitat near the boxes and boxes that had never been used were moved to more suitable trees. The boxes will be monitored to evaluate if the changes lead to greater than expected occupancy rates compared to unmodified areas.

To test these variables against new box schemes 160 Schwegler boxes have been installed this winter with half being located on trees that should be more attractive to bats and half on less attractive ones. The boxes are in 16 groups spread evenly through the woodland. Over the coming years these will be regularly inspected to assess if the boxes on optimum trees do indeed become occupied more quickly, have greater numbers and species of bats.

The output of the research will be the publication of a practical A4 guide for bat groups and others to use in the field as a checklist of things they can do to improve existing box schemes where detector surveys have identified the species present. For new box schemes it’s recommended that several detector surveys should be carried out prior to installing boxes so that effort isn't wasted siting boxes for species that aren't present in the woodland. A second A4 guide on how to site boxes for new schemes to maximize box usage and shorten the time before first use will also be produced.

Session 2

Use of advanced bat survey techniques – Ian Davidson-Watts, Davidson-Watts Ecology Ltd

The use of acoustic monitoring and survey methods has revolutionised the assessment of projects and developments potentially affecting bat populations over recent years, especially when impacts are at the landscape level. Such approaches are efficient in cost and time, and do not disturb the bat populations being studied, however such data remains very two dimensional, and is often biased towards species with conspicuous echolocation calls. In addition, such techniques are variable in their reliability for the confident identification of many bat species, and are not able to determine the sex or breeding status of detected bats. This missing information can be essential in assessing impacts and developing the most appropriate mitigation. This talk will introduce you to the use of advanced bat survey techniques such as trapping free flying bats, the use of acoustic lures and radio tracking as supplementary methods to provide a 3D level of data to support the decision making process for projects affecting bats. It will discuss the importance of obtaining these data, questions they will help answer, effective methods for specific bat species, and the pros and cons of the methods.

Batty in Africa – Helen Taylor-Boyd, Bats without Borders volunteer

The Chiroptera is an incredibly diverse group of mammals and Africa accounts for over 20% of the world's bat species diversity with over 120 species in the Southern African region (Monadjem *et al* 2010). There is a distinct gap in our knowledge and understanding of bat ecology and conservation in the region. With rapid human population growth, threats to bats increase and so ecologically and economically essential species may be lost before we can understand their importance.

Bats without Borders is a charity (Scottish Charitable Incorporated Organisation no. SCO44185) that has been set up to promote bat conservation in the Southern Africa region through research, conservation action, capacity building and engagement activities. More details about the work they do will be presented.

One of the countries where **Bats without Borders** is very active is Zambia. Zambia is home to at least 65 species of bat and also holds the spectacular migration roost of the straw-coloured fruit bat; with over 10 million bats taking the annual journey from central Africa over thousands of kilometres every year to congregate there. Helen is working closely with local organisations to raise awareness of bats and their conservation importance. She spends a lot of time on the ground in Zambia carrying out research and general bat work and will share her first-hand experience.

In November 2015, Helen was also part of a group of experienced bat workers who got together to undertake a trial expedition to Zambia to explore opportunities for tourists interested in bats to contribute to research and conservation activities. The 'ZamBats' experience was an overall success and future expeditions are currently in the pipeline.

Bats in the southern African region, like most places around the world, are still largely misunderstood, feared and persecuted, but attitudes are beginning to change. You can

discover more about how you can help by talking to Helen at the **Bats without Borders** stall or by getting in touch through their website www.batswithoutborders.org.

The swarm: An annual gathering – Steve Roe, Derbyshire Bat Conservation Group

At the last Midlands Conference Derbyshire Bat Conservation Group announced the start of a trapping project looking at autumn swarming in the county following a pilot survey. Two years on and our update on the Derbyshire Underground Sites Project will reveal our results and discuss where the project is heading.

The surveys undertaken in 2015 build on those from the previous years. We consolidated our survey efforts into three areas; sites were chosen following the results of previous surveys. The methodology remained very similar to that of 2014 with two main changes, one being the addition of mark-recapture techniques. During the survey periods in 2014 and 2015, a total of 306 bats of six species were caught. The study has confirmed autumn swarming activity within Derbyshire and the Peak District National Park at ten underground sites within the past three years and it seems likely that autumn swarming activity takes place at most underground sites within the county. Three particularly important sites for autumn swarming activity have been discovered as a direct result of the study. The project has significantly changed our knowledge of Brandt's bat within the county.

Summaries of Workshops

Bat handling (Gail Armstrong)
The workshop is aimed at beginners who may need to handle bats and would like to learn about basic handling techniques. It will cover when and why you need to handle plus basic control of a live bat. (Only people with up to date rabies vaccinations (proof will be required and gloves will be required) may attend this session.)

Bats and roofing (Chris Smith)
A look at roof structures and materials and how bats use roofs. Hands on experience with roofing materials together with a discussion about new roofing materials and techniques.

Introduction to Anabat Walkabout & Analook Insight (Andrew Dobson)
This practical workshop will go through the features of Anabat Walkabout and Analook Insight. Participants will see how to configure the Anabat Walkabout and download the collected data to analyse in Analook Insight. No previous experience is necessary, but it would be advantageous if participants were familiar with analysing bat calls.

Bat care: An introduction for new carers & ambulance drivers (Chris Sherlock)
This workshop will include the showing of a video podcast (put together by Morgan Bowers) aimed at new bat carers and ambulance drivers, along with a game looking at the different scenarios carers and ambulance drivers may face. No previous experience of bat care is needed.

Learn about the NEW Wildlife Acoustics SM4BAT and Echo Meter Touch (Paul Howden-Leech)
Participants will get a first-hand look at the new, compact SM4BAT Bat Detector and Recorder (http://www.wildlifeacoustics.com/products/song-meter-sm4bat) as well as an overview of the features of the Echo Meter Touch (http://www.wildlifeacoustics.com/products/echo-meter-touch), a bat detector and recorder for iOS devices.

Introduction to GIS for Bat Groups (Alexandra Waechter)
A hands-on workshop in the use of QGIS, a freely available Geographic Information System (GIS) software package. It will include an introduction to the basics of spatial data and spatial data analysis as well as a step-by-step work-through of some techniques that may be useful to bat groups handling survey data or performing data searches. No prior knowledge of GIS is necessary. Participants will be required to bring their own laptop to the workshop with the necessary software and data already installed (details of which were provided to registered participants prior to the conference).

Introduction to class licensing (Lisa Worledge)
This presentation based workshop provides an introduction to the class licensing system for bats in England. The focus is on licensing for volunteer bat roost visitors and for other survey class licences (which includes both volunteer and professional survey work), including what the different licences cover, training, registration, etc. along with details of how to find out more about all aspects of Natural England licenses.

Felt bat making (Anne Youngman)
Try your hand at a batty craft activity. This is the perfect way to engage new audiences in the amazing world of bats whilst having fun - no matter what your age. The workshop is also a great opportunity to share ideas about public engagement whilst making a new felt bat buddy!