

A fond farewell to Dr Jimmy Dunne

A very good friend of Ireland's bats passed away earlier this year following a short illness, Dr Jimmy Dunne. Jimmy became interested in bats in the early 1990s, initially in a peripheral but nonetheless an important way – he enabled the Galway Bat Group to attend a number of county shows by arranging the necessary insurance cover. He then played a key role in the embryonic Heritage Council by encouraging it to buy Dromore Stables in County Clare, an important maternity roost for hundreds of lesser horseshoe bats, which was at risk of development. This act prompted the then Chairman of The Vincent Wildlife Trust to buy and lease other endangered lesser horseshoe bat roosts in Ireland. Currently the VWT directly protects over 3,000 lesser horseshoe bats at these roosts.

Jimmy subsequently supervised Dr Sinead Biggane's PhD of the lesser horseshoe bat, based at Dromore Stables, the first radio tracking study of this species in Ireland. He then organised the Xth European Bat Research Symposium in Galway in 2005. His passing was marked at the most recent EBRS in Lithuania in August this year with a moving tribute at the opening ceremony, followed by a minute's silence. Bat Conservation Ireland has made a donation to the Galway Hospice as a mark of its appreciation of Jimmy.

Outside of his interest in bats, Jimmy worked in NUI Galway as a Junior Lecturer, and then College Lecturer from 1972, to his recent retirement in January 2009. He was involved in a wide array of research, but he personally described his main research interests as being Coastal Fish Ecology, Natural History and Wildlife Conservation. In recent years he supervised research projects on bats, deer, seals and golden plover. Jimmy contributed widely to the broader community, being heavily involved with the Heritage Council in Ireland, and also the National Association of Regional Game Councils of which he was vice chairman (the NARGC has 25,000 members in Ireland). Jimmy was a keen fisherman and hunter. Amongst all this he also found time to study for a law degree in his spare time.

Dr Kate McAney



What is in the Winter 2011 edition?

- Monitoring schemes for 2011
- Autumnal Swarming study in the caves of Sligo, Roscommon, Leitrim and Cavan
- European Bat Symposium in Lithuania
- New Technology – review of new bat detector
- Updates and New bat group



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12th European Bat Research Symposium, Vilnius, Lithuania August 21-26th 2011

The twelfth European Bat Research Symposium took place in Lithuania's capital, Vilnius, at the end of August this year. Approximately 160 delegates attended from around Europe and the US. A strong Irish contingent was present with six Irish delegates. Conor Kelleher and Brian Keeley the Chair and Vice-Chair of Bat Conservation Ireland attended, along with Kate McAney of the Vincent Wildlife Trust (also Bat Conservation Ireland's Secretary) and Emma Boston of the Centre for Irish Bat Research. Tina Aughney and Niamh Roche who co-ordinate Bat Conservation Ireland's monitoring schemes were also present.

The new charity Batlife Europe was officially launched at the conference (www.batlife-europe.info). This group will be an umbrella organisation for bat NGOs across Europe and aims to give an international voice to national bat conservation organisations. Bat Conservation Ireland is now an official partner of the organisation.

Among the stand out presentations during the conference was a talk by Sándor Zsebok and others on the effects of smooth vertical surfaces on bat orientation. The team from the Max Planck Institute, Germany, hypothesised that smooth vertical surfaces would not reflect echolocation calls when the bat approached these surfaces at an angle (echolocation calls would deflect in the opposite direction), thus a hard smooth vertical surface may appear to be an open space to an echolocating bat. The team set up an experiment in a tent with naïve greater mouse-eared bats (*Myotis myotis*). They found that 19 out of 21 bats collided at least once with the 'acoustic mirror'. The team also studied horizontal smooth surfaces and found that many of the bats attempted to drink from these, thinking that the smooth surface was water. Sándor pointed out that any roughness in a vertical or horizontal surface would cause echolocation calls to reflect and thus become visible, sonically, to the bat.

From the Basque Country, Joxerra Aihartza and others presented a video documentary of work at the University there about fishing long-fingered bats (*Myotis capaccinii*). This species has been recorded fishing at ponds with high densities of small fish on the Iberian Peninsula and in Israel. Also of interest in an applied bat conservation context were presentations from France on a multi-factorial mitigation process used to reduce wind farm fatalities at wind energy sites there, and a presentation from the Netherlands on the use of LED lights with a bat-friendly colour spectrum to potentially reduce negative impacts of street lamps on commuting bats. Best student presentation prize went to Delphine Quekenborn of Groupe Chiropteres de Provence on her study of the foraging habitats of the greater horseshoe bat (*Rhinolophus ferrumequinum*) in the Camargue. Emma Boston presented on the work of the Centre for Irish Bat Research on *Myotis* bats. Tina Aughney and Niamh Roche presented work on Bat Conservation Ireland's BATLAS 2010 project at the conference poster session and each gave an oral presentation on aspects of the Brown Long-eared Bat Monitoring Scheme which ran from 2007 to 2011. The Irish presentations were well-received by the delegation.



Plate 1: The launch of **BatLife Europe** at the conference. Dr Kate McAney represents BCIreland in this photograph.





Plate 2: View of the old town

With many of the well-known bat researchers from Europe present, such as Paul Racey and Lothar Bach, the conference made for many lively debates including one on relative merits of using of stable isotopes, DNA analysis and traditional insect identification from faecal remains, for analysis of bat prey.

Workshops were held on bat monitoring schemes by the Dutch Mammal Society, TRIM – a statistical tool for monitoring wildlife populations, and on the new bat detector about to be launched by Wildlife Acoustics (manufacturers of the Song Meter).

Conference excursions were held to Trakai, a small village near Vilnius with a fairytale-esque medieval castle on a lake and fascinating mixed ethnic history. Another excursion was also held to Aukstaitija, one of Lithuania's National Parks.

Vilnius itself is a very diverse city with a large old town, which is designated as a UNESCO World Heritage Site. There is much to interest the tourist with no end of museums, galleries, music, architecture and history. The Lithuanian people are friendly and welcoming, their food and beer very reasonably priced and high quality and I think all of the Irish delegation would be more than happy to attend another conference there any time! More treats are, however, in store in 2014 when the 13th European Bat Research Symposium will be held in San Sebastián, the Basque Country, a city famed for its cuisine and culture.



Plate 3: Some of the Irish delegation during the conference dinner with Karen Haysom of the Bat Conservation Trust (UK)

Bat Conservation Ireland – membership.

Bat Conservation Ireland is a company limited by guarantee. A company limited by guarantee is a legal structure for non-profit making organisations. As it is non-profit making there are no shareholders and any profits are reinvested in the company. However, we are required to have paid membership so we are introducing an annual membership fee.

Bat Conservation Ireland Membership (2012)

Basic Membership €10 per year

Deluxe Membership €20 per year

Choose one of the following gifts when you tick the Deluxe Membership:

- a) Irish Bats DVD
- b) BCIRELAND Travel Mug
- c) BCIRELAND Beanie

All members will receive an 'Irish Bats Poster', The Natterer Newsletter and BCIRELAND 'Irish Bats in Flight identification Card' as part of both Basic and Deluxe Membership.

Name: _____

Address: _____

Email address: _____

Contact number: _____

Do you wish to be contacted about monitoring schemes and training?

Do you wish to be included on the BCIRELAND mailing list?

The Natterer Newsletter is sent by email, would you prefer to receive a hard copy in the post?

Please return to Bat Conservation Ireland, Ulex House, Drumheel, Lisduff, Virginia, County Cavan.

LEISLER'S BAT ROOST COUNTS SUMMER 2011

Bat Conservation Ireland undertook emergence counts at all known maternity roosts of Leisler's bat *Nyctalus leisleri* during June/July 2011.

This project would not have been possible without the help of a large team of volunteers comprising of BCIRELAND committee members, general BCIRELAND members, bat group members, NPWS staff and roost owners.

A comprehensive report on the findings will be prepared during the coming winter months. A big thank you to all who took part.

Dr Caroline Shiel Co-ordinator)

Kildare Bat Group

Bat Conservation Ireland welcomes the launch of a new bat group. The Kildare Bat Group had its inaugural bat walk on 23rd September as part of the Cultural Night in County Kildare. Five bat group members lead over 200 people on a walk around Donadea Forest Park. In preparation for the night, the park coffee shop was decorated as a Halloween spectacular (a little early but great fun) with bats flying by candle light.

As part of funding received from the IEN Biodiversity Funds, the Kildare Bat group will be setting up a bat box scheme within the forest park. This will be monitored in 2012 and the results will be presented at the 7th Irish Bat Conference in 2012 by the Kildare Bat Group.

SWARMING STUDIES IN NORTH-WEST IRELAND

In September 2011, Bat Conservation Ireland received EUR 1,300.00 in funding from the Irish Environmental Network (IEN) to investigate the swarming activity of bats at a range of caves in North-West Ireland. *Myotis* bats, namely Daubenton's bat *Myotis daubentonii* and Natterer's bat *M. nattereri* are known to congregate and swarm at cave sites in autumn for mating purposes.

The cave systems selected for the study include Kesh Caves, Geevagh Caves, Carrowkeel Cave, Diarmuid and Grainne's Cave and the Barytes Mine, Co. Sligo; Glenboy Cave, Poll na mBéar and Pollnagollum in Co. Leitrim and White Fathers' Cave in Co. Cavan. Each cave system was monitored acoustically by placing either an AnaBat SDI Frequency Division Bat Detector or Songmeter II Platform in a cave system for several consecutive nights from August to October 2011.

Subsequent analysis of the recordings reveals the bats' activity pattern throughout the night. Once swarming behaviour has been confirmed from the recordings the team conducted a netting session in order to capture as many swarming individuals as possible. Details of species, sex, biometric measurements and reproductive condition were recorded.

Unfortunately, this study has been somewhat hampered by the extremely wet weather experienced this autumn. Nevertheless, some interesting results are emerging.

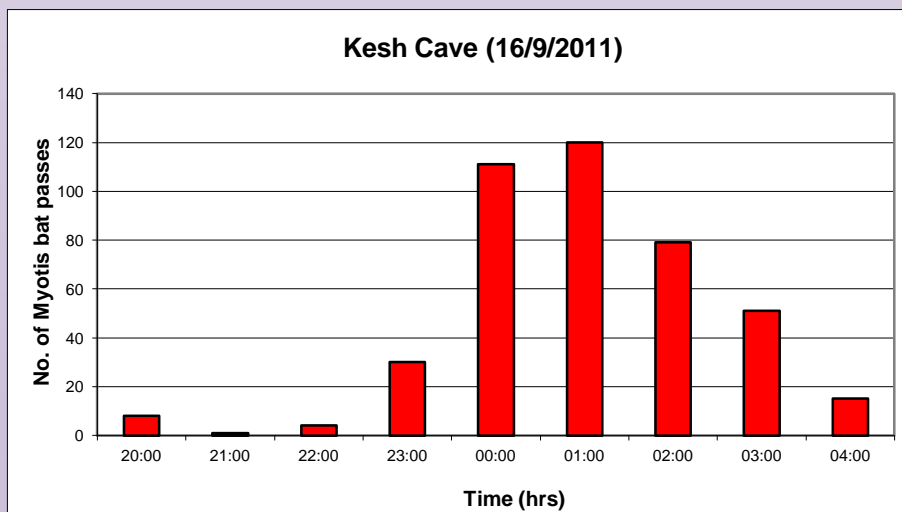
This project is being conducted by Caroline Shiel, Barbara McInerney and Tina Aughney with many assistants: Maurice Connelly,



Plate 4: Caroline and Barbara setting up a Songmeter Platform in White Fathers Cave, County Cavan



Plate 5: Caroline and Tina in their 'Charlie Angels' pose in Geevagh Cave, County Sligo spotting bats using night-vision.



The graph to the left illustrates one night's surveillance at Kesh Cave. Note the large amount of bat activity recorded (i.e. bat passes) echolocation calls recorded and stored on specialised recording equipment) between 00:00hrs and 02:00hrs – this is generally the time when bats arrive in caves used for autumnal swarming.

Review of MEKV SSF Bat2 Detector by Aine Fenner



Detector Type: A heterodyne and frequency division detector.

Cost: €179 + postage (€10 when I ordered it in April 2011)

Characteristics:

Size: This detector is a bit long but slim: Approximately 18.5 cm x 6.5cm x 2.8 cm. Weight with batteries: approx. 230 g

The heterodyne and frequency division run in tandem. The heterodyne detector is manual and the frequency division works via an automatic scanner over four frequencies which comes pre-set but you can also set it yourself. We found it not to be as sensitive as the Bat Box III for picking up Leisler's bats but a joy to walk around with at a low frequency because there is very little background noise in comparison to the Bat Box III. Where we felt it really came into its own was with distinguishing between soprano and common pipistrelles as the spectrogram displays the peak frequency really clearly.

We heard about this detector from the BCI committee and as we needed a second detector it was worth a try. We ordered the detector on Friday the 29th of April (transferring the money into the MEKV account in Germany) and received it in the post on the following Tuesday.

We were unlucky with our detector and it turned out to be a bit of a saga. There had been a software problem with the bat detectors that affected the saving functions. The problem was identified and corrected in MEKV but somehow the detector we received had slipped through the cracks. When I e-mailed Karl Volkmann, the man behind the detector, he immediately realised what had happened and sent me a replacement detector. I used it for a while at home and brought it with me to the *Myotis* workshop in Wexford and unfortunately the microphone got wet (it was out for a good while in misty weather) and stopped working. When the microphone was replaced and returned the housing of the detector was damaged in the post meaning one of the buttons was constantly on. We repaired this problem ourselves by placing some cardboard under the indent, which raised the housing and gave space for the button to work again. This sounds like a real palaver but I must say that I genuinely feel we were unfortunate in our experience and that the support provided by MEKV was friendly and good.

The microphone on our detector has been sent for testing to see what the problem was.

Advantages:

- Easy to use – very intuitive
- The on/off button is a press-down button. This is better than an on/off dial on the side of the detector as it does not get caught in the cover when replacing it. This means it is less likely to run down the batteries
- Uses standard AA batteries
- Cuts off automatically after a period of time (Can be set from a minimum of 1 minute up to infinity)
- Display has a basic spectrogram
- If tuned low looking for Leisler's and there is a pipistrelle close by the spectrogram will show it up so there is less chance of missing bats.

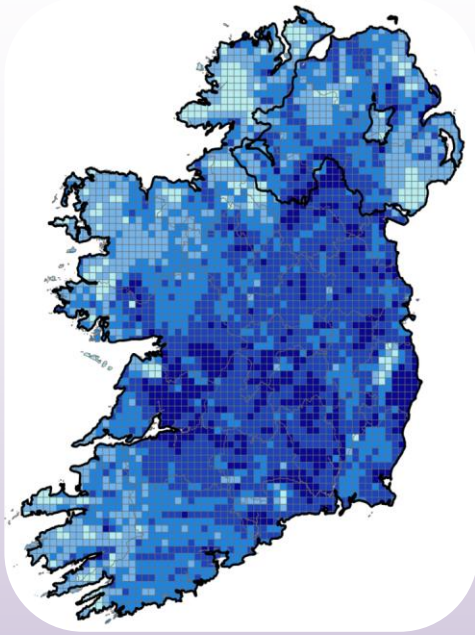
Disadvantages:

- No outlet for recording
- Microphone may be susceptible to damage in wet conditions

In summary there are a lot of really good features on this detector especially when the price is taken into consideration. The microphone on ours was not up to 2+ hours in damp misty conditions but we have found ourselves using it in preference to the Bat box 111.

Link: http://www.mekv.de/bat/SSF_BAT2_eng.pdf

Landscapes for Bats in Ireland



Bat Conservation Ireland has commissioned the Centre for Irish Bat Research (CIBR), based at University College Dublin and Queen's University, Belfast to:

- model the occurrence of Irish bat species across the island using the bat database records along with climate and habitat information.
- generate maps of 5km resolution highlighting areas of high diversity and abundance: **Landscapes for Bats in Ireland** produce a GIS dataset for each county
- provide information as an online resource for Local Authorities and relevant organisations in the Republic of Ireland with the help of the National Biodiversity Data Centre (NBDC). A similar dataset will also be produced for Northern Ireland with funding from the Northern Ireland Environment Agency.

This project is nearly completed with individual reports and GIS shapefiles being produced for each county. As part of the next step for this project, BC Ireland will be producing a book detailing all of the records collated from 2000-2009 provisionally titled **The Distribution, Range and the State of bats in Ireland**. BC Ireland hopes to launch this at the 7th Irish Bat Conference in 2012.

Distinguished Recorder Award 2011

BC Ireland would like to congratulate Dr Tina Aughney for receiving the Distinguished Recorder Award from the National Biodiversity Data Centre on Monday 5th December in the Royal Irish Academy in Dublin. This award was received jointly with Dr Roy Anderson, an entomologist based in Northern Ireland. A number of the BC Ireland committee attended the ceremony organised by the centre.



Plate 6: Michael Starret, Dr Roy Anderson, Dr Tina Aughney & Mary Kelly-Quinn



Plate 7: Paul Scott, Brian Keeley, Tina Aughney & Faith Wilson

2011 Bat Monitoring Schemes

The **All Ireland Daubenton's Bat Waterway Survey** proved to be another record breaking year with 215 waterway sites surveyed across the island. A total of 217 survey teams participated in 2011; this included 44 new survey teams. The majority of teams were composed of members of the public (149 teams) and the remainder were NPWS staff (29 teams), NIEA/Co. Co. Staff (13 teams) and BCIREland committee members (26 teams).

Bat Conservation Ireland would like to thank all of the volunteers that collated data for these three monitoring schemes. The car-based bat monitoring scheme and the All Ireland Daubenton's bat Waterway Survey will continue in 2012 and we look forward to your continued support in 2012.

If you wish to volunteer, please email info@batconservationireland.org.

Unreturned Survey Forms & Bat Detectors

If you have not returned your survey forms, please do so immediately so that they can be included in analysis for 2006-2011 dataset. Please also return bat detectors.

New Developments

The All Ireland Daubenton's Bat Waterway Survey will be available as an **Android Smart Mobile Phone App** in 2012. This App is currently being developed by Andrew Fenner, a volunteer in County Longford. This App will allow volunteers to undertake the full daytime assessment and night-time survey through the App instead of a paper survey form. The App users will then have the option of emailing the survey form via their mobile phone or uploading it to their own computer and then forwarding it to BCIREland electronically. In addition, there will be some audio aids (Daubenton's bats echolocation call) and, potentially, video clips of foraging Daubenton's bats as part of the App to facilitate training. BCIREland appreciate Andrew's time and dedication to improving the monitoring scheme for volunteers.

But for those that don't use Android mobile phones, there will be a separate **on-line system** for filing of survey results. This will also be available in 2012 and volunteers will have the option of filing their results directly on the BCIREland website. This system will have the full survey form on the website and it will require volunteers to enter the details recorded on the paper form onto the website.

The **Car-based Bat Monitoring Scheme** continued in 2011 with excellent coverage by the 28 team of surveyors across the country. A new development this year was a trial in eight survey squares of HTC smart phone units (we used HTC Desire Z) to replace the usual minidisc recorders. The aim of this changeover is to make downloading the recorded sounds easier since the phones' mini-SD cards can be inserted in a card reader and immediately downloaded to a computer. In addition, smartphones have a GPS chip so we hope to be able to pinpoint bat locations along transects, which we have been unable to do before now. The trials with the smart phones went well – a special cable had to be put together for each, with a built in resistor and capacitor, to link the bat detector and phone because the usual over-the-counter 3.5mm jack to jack lead does not work correctly. These were made for us by All-Cables in Dublin. In addition, Cormac Parle wrote a simple App for the phones to enable simultaneous GPS and sound recording. Many thanks to Cormac for his work on the App. Some glitches showed up in the software that we hope to iron out by the 2012 survey year but overall the results are very promising. So far, overall activity of common and soprano pipistrelles and Leisler's bats in 2011 seems to have been roughly on a par with 2010 levels but further statistical analysis will be carried out over the winter.