



SEE OUR NEW WEBSITE

www.batconservationireland.org

MAY 2004

2004 Membership now due, see back page for details

On the trail of the Horseshoe Bat

Conor Kelleher

The *Vincent Wildlife Trust* is currently surveying old homesteads and farm buildings in Kerry for a secretive and often overlooked animal known as the lesser horseshoe bat.

Lesser horseshoe bats feed close to the ground, gleaning their prey from branches and stones. They often carry their prey to a perch to consume, leaving the remains beneath as an indication of their presence. The echolocation call of this species is of constant frequency and, on a bat detector, sounds like a melodious warble.

All the Irish bat species are protected under the Wildlife Act 1976 (amended in 2000). The lesser horseshoe species is considered internationally important and it is listed in Annex II of the EU Habitats Directive 1992.

Ireland's bats are under threat in the modern world for a variety of reasons. As agricultural insecticides and pesticides take their toll there are now fewer insects on the land for bats to consume. These chemicals also kill bats directly

through poisoning; as a single bat can consume in excess of 3,000 insects each summer night it could possibly die if its prey has been sprayed.

Chemical parasite treatments for cattle are also affecting bats by remaining in the cows' dung. These chemicals then kill any insect larva or

having a devastating effect on these animals. Bats use these linear landscape features to commute across open countryside and as sheltered feeding areas.

Removing these features means that local bat populations become more isolated with resulting inbreeding, leading to local



eggs within the cowpat such as those of dung beetles or the yellow dung fly. This ensures that there is far less insect prey around these days for bats to eat. It also means that cow dung is not broken down and remains in the fields from year to year.

Hedgerow destruction and removal of tree-lines are

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BAT CONSERVATION IRELAND

THE NATTERER

On the trail of the Horseshoe Bat contd...

population declines.

Lack of roost sites, through renovation or destruction, is causing the bat population to form colonies of far fewer numbers than previously and so the young bats have lower chances of survival.

Lesser horseshoe bats need roosts that are easily accessible. These include farm buildings and derelict/disused cottages and houses. Many are found in buildings with corrugated iron roofs, especially if lined with boards or turf.

Unfortunately, the species is also suffering because of intolerance and fear. Old wives' tales of bats getting caught in ladies hair and sucking blood have done nothing to enhance the image of these timid and useful animals.

The *Vincent Wildlife Trust* is continuing this survey to discover the true distribution of the lesser horseshoe bat in Ireland. This species is only found along the western seaboard counties of Mayo, Galway, Clare, Limerick, Kerry and Cork. It occurs nowhere else on the island. On the continent, its numbers have fallen by nearly 90% in the last 20 years and it is now extinct in Central Europe.

The present survey is part of on-going work over several years that has resulted

in the Trust acquiring several properties as bat reserves to ensure the future survival and continued existence of this species as part of our countryside.

Photo on front page courtesy of Conor Kelleher.

UPCOMING BAT EVENTS

MAY

May 28th, Friday.

Bat Detector Workshop for experienced detector users. Slane Farm Hostel, Slane, Co. Meath. For details see the BCI website or tel 087 8173073. Cost €60.

May 29th, Saturday.

Bat Detector Workshop for beginners and improvers. Slane Farm Hostel, Slane, Co. Meath. For details see the BCI website or tel 087 8173073. Cost €60. This workshop is **BOOKED OUT!**

JULY

14th July, Wednesday

Bat Walk - Ramparts, Navan, County Meath
Walk along the River Boyne and Canal

22nd July, Thursday

Bat Walk - Church of Ireland, Virginia, County Cavan
Walk along the shores of Lough Ramor

27th July, Tuesday

Bat Talk & Walk - Graiguenamanagh, County Kilkenny
Bat Talk and Walk along the River Barrow

For more details on the July events contact

Tina Aughney on 086 4049468

The Vincent Wildlife Trust is continuing this survey to discover the true distribution of the lesser horseshoe bat in Ireland.

Bats in the House—Who do you call? The Batline

By Tina Aughney Cavan/Meath Bat Group

As bat activity increases with the onset of long summer evenings and mild nights, the Batline is a source of reassurance and friendly advice on all bat-related topics. It is a public service available for the summer months to coincide with the season when bats are most active. This help line provides BCIreland with an opportunity to present a case for conserving bats. It allows the bat worker to explain to the caller that bats are seasonal visitors to houses just like swallows and house martins and it is also a good chance to break the myths about bats. In general, attitudes range from knowing absolutely nothing about bats but having a vague idea that they are a not wanted in a house to being completely opposed to them roosting within the attic space. It is our role to reduce callers' fears and help them through their dilemma while always being aware of the caller's feelings and the need to conserve bats. It is essential that conservation of bats and their roosts is achieved through understanding and co-operation leading to the continuing goodwill of the house owner.

BCIreland has received funding from The Heritage Council to provide the service of The Batline for the summer of 2004. In previous years, The Batline has proved its worth. In the summer of 2002, 124 individuals contacted the service, mainly in July and August with a small

number of queries in September. Twenty-three of these messages were e-mails, but in the majority of cases, enquirers were contacted by telephone after the initial contact by e-mail. A total of 96 'Bat packs' were posted to 'Batline callers' while 6 house calls were made. This was not the general situation but where possible a quick survey of the general roosting space was made to determine what species was residing in their houses. In all cases, the householders were left with a renewed interest in bats. In 2003, The Batline started off in July with a total of 54 phone calls and 10 e-mail queries. This increased in August with a further 57 phone calls and 13 e-mails. In September, 20 phone calls and 8 e-mails were processed. During this summer, 87 bat-packs were posted and 4 house calls were made.

In general, calls received can be divided into those who discover bats roosting in their house and those who want to undertake work that will cause damage to a roost. In the majority of cases, the individuals that have contacted the Batline over the last two summers were seeking reassurance about bats and issues of health, nuisance and potential damage to attic/roof space where the bats were residing. Once reassurance was provided about the bats and their need to utilize our living spaces for maternity roosting, in the majority of cases, callers were positive about these mammals. In all

cases, the name of the local NPWS Conservation Ranger was provided while calls where renovation work was planned were automatically passed on to the conservation ranger. This gave the callers extra reassurance that local support was available if required. Some of our callers were seeking information about bats and delighted to have bats sharing their house. One gentleman rang to invite the bat group down to visit 'his' bats and, of course, enjoy a cup tea. The majority of 'Bat packs' sent to Batline callers contained standard information on 'bats in houses' and bat species found in Ireland. However, where required, 'Bat packs' were tailored for those people seeking particular material. This included information specifically for children or on encouraging bats into gardens.

The number of calls received in the past and the continued growth of public awareness of bats means that a service like The Batline is important for general queries about bats.

BATLINE: 046 9242882

Email: batline@eircom.net

You can also contact your local Conservation Ranger for information about bats.

The Batline is a source of reassurance and friendly advice on all bat-related topics

BATS AND BRIDGES

Dr Caroline Shiel



Example of an untreated masonry bridge in North Leitrim

Ireland boasts an impressive array of masonry bridges countrywide, ranging from single arches over small streams to large multi-arch structures spanning our major rivers. Many of Ireland's masonry bridges date from the 19th century and were designed to carry mainly equestrian traffic. These bridges require strengthening procedures to enable them to deal with the weight of modern traffic.

Bridges of masonry construction are the most suitable type for accommodating bats, although bats are occasionally found in modern bridges. Bats roost in a wide range of crevices and fissures that occur in bridge structures, in particular under the bridge arch. As well as housing bats, masonry bridges also provide nest sites for birds such as dippers, pied and grey wagtails, wrens and tits and also shelter many species of invertebrates in the interstices of the stonework.

A survey which I carried out in Counties Leitrim and Sligo in 1998 to assess bridge usage by bats recorded five species of bats. A total of 174 bridges were

surveyed and 252 bats recorded – Daubenton's (71.4%), Natterer's (26.2%), Whiskered (1.2%), Long-eared (0.4%) and Pipistrelle (0.4%). The vast majority of bats were found in crevices under the arch at or close to the apex, anywhere from behind or between the facing stone to the centre of the arch. Most bats were found roosting in relatively small crevices in the stonework either singly or in small numbers. However, a small number of nursery roosts were also identified. There were located in substantial fissures – usually a deep crack running across the barrel of the underside of an arch. Nursery colonies require these larger fissures to allow a number of females to congregate. These deeper fissures are also probably better insulated against external temperature fluctuations.

Bridge usage by bats was assessed on a seasonal basis with each bridge being surveyed three times between late April and Mid November. The survey showed that bridge utilization by bats was erratic. However almost 70% of untreated masonry bridges held roosting bats at some stage dur-

ing the survey. By far the most common species recorded in May, June and July was Daubenton's, with only 3 Natterer's bats during this period. By August and September relatively more Natterer's were being recorded and in October they outnumbered Daubenton's by about 4:1.

Bats roosting in bridges are threatened by unsympathetic bridge strengthening procedures. Bats roosting inside the bridge may be entombed, or at best, if they manage to escape in time, permanently excluded from their roost site. As well as being detrimental to the bats these processes also deface the complex stonework of the bridge itself. O'Keeffe and Simington (1991) in their book *Irish Stone Bridges: History and Heritage* draw attention to the architectural, cultural and historical heritage of our stone bridges and believe that bridges are not being given the attention they deserve as components of our cultural heritage.

Masonry bridges require maintenance work and strengthening procedures more frequently in current times due to increased

weight and volume of modern traffic. Bridges have to withstand forces from above from carrying heavy traffic and the scouring and erosion of the bridge abutments from the water flow below. The grout and mortar in masonry bridges are slowly eroded from between the stones by water constantly seeping through the structure. When water or stones become dislodged this creates a crevice, which can be used as a roosting site by bats. Mortar may be replaced and crevices filled by hand grouting or pointing with cement mortar. This can easily be compatible with the retention of

The main problem with controlling grout flow around cavities that require preservation for bats is to know when to stop pumping. This can only be achieved through careful observation. Shotcreting or guniting is a process where liquid cement, sand and chippings are sprayed under pressure onto the undersurface of the arches. This is carried out prior to pressure grouting to seal the undersurface of the arch. The combination of pressure grouting and shotcreting eliminates any voids in the internal structure of a bridge and also fills up any interstices in the stonework. To date, many bridges

roost of Daubenton's bats. This bridge required major strengthening procedures including pressure grouting in Autumn 2003. As a result of co-operation between a sympathetic and conscientious contractor and myself we were able to retain sections of the deep fissure used by the nursery colony. It remains to be seen how the bats rate this new arrangement and recolonization will be monitored closely in 2004. I intend to outline the full procedure in more detail in a subsequent article.

It is crucial that all bridges requiring strengthening procedures are surveyed for bats by appropriately qualified personnel prior to the commencement of any work. Due to the erratic nature of bridge occupancy by bats it is recommended that surveys be carried out incorporating repeated visits during the season. Bridges should be surveyed both by day with a torch and in the evening with a bat detector. In order to allow time for comprehensive surveys to be carried out local authorities should forward lists of bridges targeted for strengthening procedures to NPWS staff as early as possible. It is only with greater cooperation between local authority engineers and wildlife officials that masonry bridges can continue to be the wildlife havens that surveys have proven them to be.



Bridge in south Donegal after pressure grouting and shotcreting. Prior to this procedure the bridge held a large nursery colony of Daubenton's bats.

roost sites when the position of the roost sites have been clearly marked and pointed out to the contractor or engineer prior to the commencement of strengthening procedures. Hand-grouting is usually employed when a bridge needs only a minimum of maintenance procedures. A bridge can become structurally unsound when large voids develop between the rubble filling of a bridge and the road surface above. This will often necessitate a procedure termed pressure-grouting – a process where liquid grout is pumped through small bore holes into the internal cavity of a bridge.

in Ireland have received pressure grouting treatment, often without any preceding wildlife survey with the consequential loss of bat roosts.

Even when a bridge requires pressure-grouting it is still possible to retain suitable crevices for bats. Smaller crevices may be retained by blocking a selection of suitable crevices with polystyrene prior to the shotcreting process and removal afterwards. It is possible to retain deeper fissures in bridges even when pressure grouting is necessary. One of the bridges which I surveyed in Sligo during the 1998 survey held a nursery

Photographs courtesy of Caroline Shiel.

Caroline's full report on Bats in Bridges is available on www.heritagecouncil.ie

BAT CONSERVATION IRELAND

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Tierworker
Kells, Co.

Phone the Batline: 046 9242882
Email: batline@eircom.net



MEMBERSHIP OF BCIreland

Bat Conservation Ireland is an independent charity that has been set up to promote bat conservation in Ireland. We run training events, an information phone line, bat data projects and liaise with National Parks and Wildlife Service and other Government organisations.

Bat Conservation Ireland is an umbrella organisation for the local bat groups.

Your membership fee will help us keep various projects ongoing such as the Batline, bat walks, detector workshops, monitoring and roost visits. You will also receive *The Natterer*, our quarterly Newsletter with the latest Irish bat news.

Membership is €10 per person or €15 for a family. Send your fee (payable to Bat Conservation Ireland) to

Membership secretary

Bat Conservation Ireland, Deerpark House, Tierworker, Kells, Co. Meath

Please give us your address and other contact details such as email and telephone numbers.

Conference delegates attending the 4th Irish Bat Conference in May last year at The Newgrange Hotel, Navan, Co. Meath. The next bat conference in Ireland will be the 10th European Bat Research Symposium in August 2005 which will be held at NUI Galway. Watch this space for more details...

IRISH WILDLIFE TRUST CONFERENCE

As 2004 is the 25th anniversary of the *Irish Wildlife Trust*, it was decided that the Trust should mark the occasion with a three-day celebration of Irish wildlife which will be held on 24th - 26th September at Castle Durrrow, Durrrow, Co. Laois.

The location was chosen for ease of commuting and the fact that it is stunning! The 17th Century house is set in beautiful parkland, with a river flowing through it. Wildlife is abundant in the area with otters on the river, grey squirrels in the garden and pine marten (sometimes in the hen coop!). A guided bat detector walk within the grounds on the Friday evening along the River Erkina will highlight the local species. Details of the estate and hotel can be found on: www.castledurrow.com

The programme includes presentations and workshops that highlight the latest research and status of the Irish fauna – mammals, birds, reptiles, amphibians and invertebrates - and flora, including individual species, legislation, habitats, conservation etc. The hands-on workshops at the conference will cover practical wildlife work such as 'identification of bats in the hand', 'tracks and signs of Irish mammals', surveying for pine marten, wildlife photography etc.

Speakers from many fields, institutions and backgrounds are included in the line-up and the event is open to all interested in the welfare of the wild animals and plants that inhabit this island in the 21st Century.

The event will be an opportunity for like-minded people from students and academics to consultants and amateur naturalists to mix and discuss the Irish countryside and its wild inhabitants. A conference dinner followed by a ceilí on the Saturday evening will add to the celebration and social aspects of the event. All are welcome.

Booking forms and the conference programme are available on the IWT web site: www.iwt.ie and from the IWT office at Garden Level, 21 Northumberland Road, Dublin 4 or from the Conference Organiser at Spring Lane, Carrigagulla, Ballinagree, Macroom, Co. Cork. Booking forms must be returned on or before July 31st 2004.

