

## AGREEMENT FOR THE CONSERVATION OF BATS IN EUROPE (EUROBATS)

### Report on the implementation of the Agreement in the United Kingdom

# 2004

This document reports on actions undertaken by the UK in 2004 to meet its obligations under the Agreement.

#### A. GENERAL INFORMATION

Party: United Kingdom

Date of Report: February 2005

Period Covered by Report: January – December 2004

Competent Authority: The Department for Environment, Food and Rural Affairs (DEFRA)

Changes Regarding:

- Competent Authority -
- Appointed member of the Advisory Committee -
- Membership of other committees/working groups -

#### A. Abbreviations

ASSIs	Areas of Special Scientific Interests
BCT	Bat Conservation Trust
CCW	Countryside Council for Wales
cSAC	Candidate Special Area of Conservation
CSS	Countryside Stewardship Schemes
DEFRA	Department for Environment, Food and Regional Affairs,
DAFF	Department of Agriculture, Fisheries and Food (Isle of Man)
EHS	Environment and Heritage Service (NI)
ESA	Environmentally Sensitive Areas
JNCC	Joint Nature Conservation Committee
SACs	Special Area of Conservations
SSSI	Site of Special Scientific Interest
WISS	Wildlife Incident Investigation Scheme
UK	United Kingdom

#### B. STATUS OF BATS WITHIN THE TERRITORY OF THE PARTY

##### 1. Summary Details of Resident Species

There are 16 species of bat resident in the UK. The greater mouse-eared bat (*Myotis myotis*) was officially declared extinct in the UK in 1991; however, in 2004 the male greater mouse-eared bat was recorded at the same hibernation roost as in 2003 and in 2002. No female greater mouse-eared bats or maternity roosts have been recorded, and so it officially remains as non-breeding in the UK.

Environment and Heritage Service [NI] (EHS) has produced the following table shown below, which represents the resident species of Northern Ireland.

Common name	Specific name	Population estimate	Distribution/status
Leisler's bat	<i>Nyctalus leisleri</i>	*18 000	Widespread/frequent
Brown long-eared bat	<i>Plecotus auritus</i>	*45 000+	Widespread/frequent
Common pipistrelle	<b>Pipistrellus pipistrellus</b>	*1 150 000	Widespread/common
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	*580 000	Widespread/common
Nathusius' pipistrelle	<b>Pipistrellus nathusii</b>	*12 000	Widespread/ rare
Natterer's bat	<i>Myotis nattereri</i>	*48 000	Widespread/rare **
Daubenton's bat	<i>Myotis daubentonii</i>	*410 000	Widespread/frequent **
Whiskered bat	<i>Myotis mystacinus</i>	*24 000	Widespread/rare **
Brandt's bat	<i>Myotis brandtii</i>	Not yet known	Not yet confirmed

\* Mean population estimates based on flying individuals (see Russ, 1999)

\*\* Status not confirmed, due to lack of information

Russ, J.M. 1999. *The microchiroptera of Northern Ireland: community composition, habitat associations and ultrasound*. The Queen's University of Belfast. Unpublished PhD thesis.

## 2. Status and Trends

### Hibernation Survey

The results from the Hibernation Survey show the Daubenton's bat population is estimated to have increased by 4.4% and the Natterer's bat population is estimated to have increased by 5.98 annually.

year	Daubenton's	Natterer's	whisk/brandt's	Brown long-eared	lesser horseshoe	greater horseshoe
1997	100	100	100	100	100	100
1998	103.8	106	102.4	96.7	100.8	113.9
1999	107.4	112	106	91.4	102.6	110.8
2000	110.9	118.5	110.1	87	106.5	98.6
2001	115.5	126.2	114.2	83.9	111.1	85.7
2002	121.5	132.8	117.4	82.6	115.8	74.3
2003	129.5	141.7	118.7	81	121	65.5
<b>Annual</b>	<b>4.40%</b>	<b>5.98%</b>	<b>2.90%</b>	<b>-3.45%</b>	<b>3.23%</b>	<b>-6.81%</b>

### Field Survey Results

From the Field Survey data the UK's common pipistrelle population is estimated to have increased since 1998 at an annual rate of 14%.

year	Daubenton's	pip45	pip55	serotine	noctule
1998	100	100	100	100	100
1999	105.6	122.8	87.8	84.7	89.9
2000	108.2	146.8	81.9	73.9	85.5
2001	110.6	168.8	81.1	70.2	84.2
2002	114	184.6	83.2	72.3	85.7
2003	117.9	198	90.1	77.2	87.5
<b>Annual</b>	<b>3.35%</b>	<b>14.64%</b>	<b>-2.06%</b>	<b>-5.04%</b>	<b>-2.64%</b>

### Colony Counts

The size of lesser horseshoe bat colonies have increased significantly by 79% since 1994 in the UK (Data from Wales is collected by CCW volunteer). None of the other species, common pipistrelle, soprano pipistrelle and serotine have shown significant trends during the survey period. At present there is insufficient data to calculate trends for Natterer's and brown long eared bats from the Colony Counts.

year	pip45	pip55	serotine
1998	100	100	100
1999	102	110.9	104.1
2000	102	122.2	106
2001	98.6	130.5	105.2
2002	92.1	134.6	104.4
2003	83.8	135.4	103.9
<b>Annual</b>	<b>-3.47%</b>	<b>6.25%</b>	<b>0.77%</b>

The breakdown of surveys for 2004 is as follows:

	No of sites in 2004	No of volunteers contributing in 2004	No of volunteer hours in 2004
Field (5 species)	442	276	5304
Colony (6 species)	664	437	4980
Hibernation (6 species)	291	58	4074
<b>TOTAL</b>	<b>1397</b>	<b>644</b>	<b>14358</b>

### 3. Habitats and Roost Sites

#### Guernsey

Guernsey's dense housing population affords many roost sites, particularly fascia boards over rough granite for pipistrelles and barns for all species.

#### United Kingdom

Further radio-tracking of lesser horseshoe bats was undertaken in Wales at Glynllifon SSSI/cSAC to identify flight routes, feeding habitats and links between the nursery roost, night roosts and hibernacula

The Wye Valley and Forest of Dean Bats Sites cSAC is considered to be one of the best areas in the UK for the greater horseshoe bat (Natura 2000 standard data form, 1996). In addition, this cSAC also supports important colonies of the lesser horseshoe bat (*Rhinolophus hipposideros*). A project funded by CCW was started to undertake a survey of suitable feeding habitat within a 4km radius of the maternity roost; to radio-track pre-breeding adults to identify the main flight lines (between the roost and the feeding areas, between feeding areas and between other roosts if any are identified) and feeding areas within and outside of the 4km radius of the core maternity roost; to monitor the current condition of the suitable feeding habitat within a 4km radius of the maternity roost, taking into account connectivity and condition of flight lines between habitat patches

The largest pre-parturition count of lesser horseshoe bats in Wales was 661 at Bryn-y-gwin Isaf near Dolgellau.

The largest pre-parturition count of pipistrelle bats *P. pygmaeus* in Wales was 1341 at Cobden's Hotel in Capel Curig.

A number of habitat enhancement and roost creation/enhancement projects are undertaken by the 95 bat groups in the UK. Most of these groups are affiliated to Bat Conservation Trust. (Many of the projects reported in the Eurobats report of 2003 were ongoing for 2004

Total of around 5065 bat boxes on Forestry Commission land and 147 new boxes have been planned for this year in various locations across the UK.

#### 4. Threats

Main threats to bat conservation identified are:

- Building demolition,
- Building maintenance and alterations,
- Tree works,
- Barn conversions,
- Loss of habitat due to planning proposals,
- Loss of traditional farmed landscape,
- Works to underground sites.

Training, monitoring and survey initiatives and a Five Year Plan are co-ordinated to address these concerns.

#### 5. Data collection, analysis, interpretation and dissemination

##### Monitoring programme

For 10 species there is sufficient coverage to carry out robust statistical analysis. Where species have been encountered on less than 40 sites trend analysis confidence is reduced due to low precision associated with small samples. The table below shows the species monitored, monitoring method employed and number of sites in 2004 and since survey inception (total network) for each selected species.

	HIBERNATION COUNTS		COLONY COUNTS		FIELD SURVEYS	
	2004	Total Network	2004	Total Network	2004	Total Network
Greater horseshoe	26	68	-	-	-	-
Lesser horseshoe	89	145	55	195	-	-
Daubenton's	88	161	-	-	*259	*873
Natterer's	116	197	41	64	-	-
Whiskered	7	21	-	-	-	-
Serotine	0	4	44	103	*183	*505
Noctule	0	2	-	-	*183	*505
Common pipistrelle	1	1	-	-	*183	*505
Soprano pipistrelle	0	0	-	-	*183	*505
<i>Pipistrellus</i> sp	5	24	457	1001	-	-
Brown long-eared	65	178	67	91	-	-

\*Sites surveyed (including sites where species surveyed for but absent)

Over 2004 a total of 27 workshops on bat detectors have been held with over 400 participants receiving training.

For Northern Ireland all bat records are collated and stored at the Centre for Environmental Data and Recording at the Ulster Museum.

## **C. MEASURES TAKEN IN ACCORDANCE WITH ARTICLE III TO THE AGREEMENT**

### **6. Legal measures taken to protect bats, including enforcement action**

Eighteen incidents involving bats were reported to police in 2004. Of those, on six occasions the police in conjunction with CCW and sometimes local bat groups provided advice to potential offenders resulting in the prevention of offences. Eleven cases were considered for prosecution but in nine no further action was taken due to insufficient evidence. In one incident the offence has been admitted and Crown Prosecution Services are deciding whether to charge or caution. In the final case, sufficient evidence was available to prosecute, but the offender was deceased. One case of a breach of licence conditions was reported and advice was given.

530 calls about bats in dwelling houses were received in Northern Ireland. In 25 cases guidance on means of exclusion was provided. 1 licence to destroy a bat roost for reasons of over riding public interest was issued.

### **7. Sites identified and protected which are important to the conservation of bats**

In Wales one new Site of Special Scientific Interest (SSSI) was notified for its bat interest in 2004, comprising a nursery roost of lesser horseshoe bats, hibernation and satellite roosts together with woodland feeding habitat.

In Northern Ireland no further ASSIs or SACs have been designated for their bat interest this year.

### **8. Consideration given to habitats which are important to bats**

#### **Wales**

The three National Parks in Wales and CCW set up a project to provide a "Review and Synthesis of Published Information and Practical Experience on Bat Conservation within a Fragmented Landscape" which is due for publication in 2005.

#### **Isle of Man**

A review of the pilot Agri-environment Scheme is taking place. A report is expected in spring 2005, following which a full scheme will be considered. DAFF is considering setting up a separate stewardship scheme, equivalent to Tier One of the pilot Agri-Environment Scheme, within which basic payments would be made for achieving standards of practice on farms. A full Agri-environment Scheme proposal could then concentrate on specific habitats.

The Department of Local Government and the Environment is developing an Isle of Man Strategic Plan for planning purposes and is going to an inquiry in 2005 for agreement.

The DAFF Amenity Tree Planting and Small Woods Scheme has now been part-funding tree planting for 20 years. 7642 trees were planted in the 2002/3 season.

#### **England**

An entirely new agri-environment scheme called Environmental Stewardship has been designed in 2004. This will be launched in March 2005 and replace the existing Countryside Stewardship (CSS) and Environmentally Sensitive Areas (ESA) schemes. The "Higher Level" component of this scheme has been designed to specifically address the habitat management requirements of nationally protected and UK Biodiversity Action Plan species, including the majority of native bat species.

- CSS agreements – 16 new CSS agreements set up with management tailored to benefit bats.
- ESA Agreements – 6 ESA agreements included consideration given to bat habitats.
- CSS Special Projects – 1 new project targeted at bats.
- Project-based Scheme – 1 new agreement set up. Barn Conversion tailored to benefit bats.

## **9. Activities carried out to promote the awareness of the importance of the conservation of bats**

Guernsey held an introductory bat detector workshop in 2004 to be followed by a more advanced workshop in 2005, aimed at promoting awareness.

In March 2004 the Manx Bat Group organised a Wildlife Crime Seminar. This was an open meeting and resulted in some lively discussion, raising awareness of the issues and points of contact. It was followed by a smaller, closed meeting to discuss law enforcement issues.

Bat walks, talks and visits (30 last year) were carried out in several Forest Districts by the Forestry Commission in the UK.

Defra's Rural Development Service ecologists made presentations to farmers in England, participating in agri-environment schemes on bat conservation advice. Guidance and training was also provided internally to technical staff and building specialists about the need for bat surveys prior to restoration of traditional farm buildings.

The BCT organised three bat conferences in 2004. An on-line discussion forum was piloted in 2004. E-mail has improved speed and efficiency of getting information out to over 350 bat workers, and this is carried out on a regular basis. The National Bat Helpline dealt with almost 3,500 enquiries between May and August.

EHS continues to give financial assistance to the Northern Ireland Bat Group and funds an advisor post in the Ulster Museum. The advisor spends 75% of their time dealing with bat related issues. (£21,565) for the period of this report.

A new 2 year initiative part funded by the National Trust (NI) and EHS was commenced in September 2004. The cost of this will be £8,425 and £65,075 respectively. A manager has been contracted to help deliver the Bat Species Action Plans in NI and promote bat walks, talks and displays on bats at National Trust properties and elsewhere in NI. Part of this will be involving relevant bodies, landowners and others that can help bat conservation and promotion e.g. Belfast Zoo, other conservation organisations.

## **10. Responsible bodies, in accordance with Article III.5 of the Agreement, nominated for the provision of advice on bat conservation and management**

Environment Department of the States of Guernsey  
La Societe Guernesaise  
Bat Conservation Trust

## **11. Additional action undertaken to safeguard populations of bats**

Countryside Council for Wales commissioned technical support and research project during 2004; two such projects have been listed below.

- Smith, P.G., Morgan, P.L. (2004). Radio tracking of lesser horseshoe bats from Agen Allwedd cave (Craig y Cilau NNR), spring 2003. Unpublished report.
- Colin Catto, C., Langton, S. (2004) National Bat Colony Count: Analysis of Colony Size Trends in Wales

The Environment Agency is involved in seven projects aimed at delivering biodiversity gains for bats during 2003-04. A further 400 projects have been implemented using £4m worth of expenditure which will have some benefit to bats but the projects are not aimed directly at bats as the targeted species.

The BCT has been involved with the following projects in 2004 (in addition to those also mentioned elsewhere in this report)

- Modified Hibernacula Project (funded by the Peoples' Trust for Endangered Species) – further work to be undertaken
- Three Parks Project, Wales – investigation looking at bats in a fragmented landscape, with particular reference to effects of land use planning. (Funded by CCW, the three Welsh national parks and Pembrokeshire County Council.)
- Favourable Conservation Status – World Wide Fund for nature is funding this project, BCT, Herpetological Conservation Trust and others are involved. The aim is to further the debate over what FCS is, and when it applies.

**12. Recent and ongoing programmes (including research and policy initiatives) relating to the conservation and management of bats. In the case of research, summaries of completed projects should be provided, giving references where possible and acknowledging the sources of funding.**

In 2003 Jenny Dunn studied for a BSc research project entitled The Comparative Distribution of the Foraging Habitats of the Common and Soprano Pipistrelle Bats (*Pipistrellus pipistrellus* and *P. pygmaeus*) with Relation to Altitude on the Isle of Man. Transect work from sea level to 400m revealed remarkably high densities of bats on the island. *P. pipistrellus* selected woodland interiors and riparian habitats, but showed a clear altitudinal effect on bat density, possibly due to temperature or insect abundance effects. *P. pygmaeus* used woodland and avoided arable land; its altitudinal variation was explained by its habitat use.

The Wildlife and Conservation Grants Scheme 2004 in the Isle of Man was agreed and brought into force this year. The project which was part-funded in 2004 included an Isle of Man Bat Walks booklet which will be printed and launched in spring 2005 to coincide with their summer walks programme.

*A study, "Pre-hibernal and hibernal activity and dispersal patterns of Leislers bat, Nyctalus leisleri, in Northern Ireland" was undertaken by Hopkirk and Russ Bat Ecology funded by EHS. The cost of the study was £29,093.*

Twenty nine adult bats were captured, tagged with radio transmitters and tracked by car, for a total of 94 nights in 2002 (29<sup>th</sup> July to 12<sup>th</sup> November) and 101 nights in 2003 (23<sup>rd</sup> August to 21<sup>st</sup> January). Overall, on average, bats moved for approximately 2 kilometres in a southerly direction over the entire study period. Trees (primarily Oaks and Beech) and buildings were used as roosts from August until the start of November. After this period, individual bats were found in trees only. Fifty percent of roosts were on forest edges and paths and 34.5% were within 15m of an edge. The remainder (15.5%), were within 200m of a path or 'edge'. A peak in roost switching activity occurred in the first week in October. After the first week in November, when temperatures reached around 10°C, bats spent all of their time in the roost.

The study demonstrated the importance of deciduous tree species such as oak (*Quercus* spp.) and Beech (*Fagus* spp.) for Leisler's bats during pre-hibernation and hibernation. It also revealed that Leisler's bats in Northern Ireland, although dispersing to mating and hibernation roosts, do not undergo large migrations as they do in some areas of continental Europe. This is probably because conditions in Ireland in winter are favourable for hibernation.

**13. Consideration being given to the potential effects of pesticides on bats, and their food sources and efforts to replace timber treatment chemicals which are highly toxic to bats**

The Wildlife Incident Investigation Scheme (WIIS) is operated by the four UK agriculture departments and is co-ordinated by the Pesticides Safety Directorate (an executive agency of Defra). Although there are some local differences in detail, the basic operation of the Scheme is the

same throughout the UK. Field investigations are carried out into cases where it is suspected wildlife has been affected by pesticides, post mortem examinations of casualties are undertaken and samples analysed for pesticide residues. The results of these enquiries are used in reviews of the conditions of approval of the pesticides concerned, and evidence of illegal use (whether a deliberate attempt to poison wildlife or an unapproved method of use against the proper target species) may lead to prosecution or other enforcement action.

During 2004, two cases involving bats were accepted into this Scheme. Analysis for pesticides in both cases was negative, so the deaths of these bats could not be determined.

## **D. FUNCTIONING OF THE AGREEMENT**

### **14. Co-operation with other Range States**

Guernsey's bat group is affiliated to the Bat Conservation Trust of Great Britain

In December 2004 a very successful 3-day workshop was organised by the Bat Conservation Trust. UK government agencies attended this facilitated workshop to work towards production of a survey manual which will be tailored to specific target groups. The manual will be an evolving document designed to assist land use managers to make informed decisions about complexities of surveying for bats. The final document will be structured under key headings of risk management, site assessment, survey methodology and proportionality, for different areas of need, e.g. artificial structures, woodlands and highways. This manual will be produced in 2005, and should be relevant for bat surveyors across Europe (although it may need adapting to suit the specific bat activities of individual countries). Good practice in forestry management that delivers for conservation of bats was also covered at the 3-day workshop.

### **15. Measures taken to implement Resolutions adopted by Meetings of Parties**

#### **Consistent monitoring resolution**

A workshop was held by BCT in Georgia (funded by Defra) which 15 delegates attended. The following countries were represented: Georgia, Armenia, Azerbaijan, Russia, Netherlands and the UK.

In addition, a second workshop is to be arranged to discuss consistent monitoring methods with a view to developing a pan-European project.