

THE AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS [EUROBATS]

REPORT ON THE IMPLEMENTATION OF THE AGREEMENT IN *IRELAND*

A. General Information

Name of party - Ireland
Date of Report - 30 June 2010
Period Covered - September 2006 – June 2010
Competent Authority - National Parks and Wildlife Service
Department of Environment, Heritage and Local Government
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the Advisory Committee - Dr Ferdia Marnell



Comhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government

Abbreviations

BCIreland Bat Conservation Ireland
BCT Bat Conservation Trust
CIBR Centre for Irish Bat Research
DAF Department of Agriculture and Food
EBRS European Bat Research Symposium
FS Forest Service
NGO non-Governmental organisation
NIEA Northern Ireland Environment Agency
NPWS National Parks and Wildlife Service
SAC Special Area of Conservation
VWT The Vincent Wildlife Trust

B. Status of Bats Within the Territory of the Party

1 Summary Details of Resident Species

Eight species of bat have been confirmed breeding in Ireland.

- (a) Common Pipistrelle – *Pipistrellus pipistrellus*
- (b) Soprano Pipistrelle – *P. pygmaeus*
- (c) Brown Long-eared Bat – *Plecotus auritus*
- (d) Leisler’s Bat – *Nyctalus leisleri*
- (e) Whiskered Bat – *Myotis mystacinus*
- (f) Daubenton’s Bat – *M. daubentoni*
- (g) Natterer’s Bat – *M. nattereri*
- (h) Lesser Horseshoe Bat – *Rhinolophus hipposideros*

The status of two further species is unclear – *Pipistrellus nathusii* was first reported in Ireland in 1997 and has since been recorded from most counties. However, no roosts have yet been located although roosts are known from Northern Ireland. Following two reports of *Myotis brandtii* in Ireland, one in the east (2003) and one in the south-west (2005), an extensive national resurvey of all known roosts of *Myotis mystacinus* (a species easily mistaken for Brandt’s) has been undertaken. All of these roosts have been confirmed genetically as *M. mystacinus* and no roosts of *M. brandtii* have been located. Some doubts have now arisen about the identification of one of the two *Myotis brandtii* records from Ireland and further genetic testing is underway.

2 Status and Trends

A new Red Data List of Irish Mammals was published in 2009 by the National Parks & Wildlife Service. In this updated report all Irish bats were considered to be of “least concern” bar the Leisler’s bat, which was assessed as Near Threatened because of the international importance of the Irish population, and Brandt’s bat which was assessed as data deficient. (see: Marnell, Kingston and Looney (2009): <http://www.npws.ie/en/PublicationsLiterature/RedLists/>)

A comprehensive National Bat Monitoring Programme is in place. It is funded by the National Parks & Wildlife Service. Most of the individual schemes within the programme are managed by Bat Conservation Ireland [BCIreland], the national bat NGO. Robust population trend data is collected on an annual basis for five of Ireland’s bat species. Additional schemes are in place to establish the status of the other 5 species.

i) Lesser Horseshoe Bat Monitoring

NPWS conducts annual monitoring at maternity and hibernation sites of *Rhinolophus hipposideros*. Approximately 100 known winter sites (containing c. 45% of the national population) and 150 known summer sites (with c. 60% of the national population) are surveyed each year. Although most of the sites included in the annual monitoring programme are known to be important for this species, a proportion of the sites were included where only a small number of droppings or individual bats had previously been recorded. Most of these minor roosts are at the edge of the bat’s range in Ireland and by monitoring these on a regular basis (i.e. every 3 years) it is hoped to chart any changes in the species distribution. Lesser horseshoe bat numbers appear to be stable.

ii) Car-based Monitoring Scheme

A car-based survey for bats was initiated in Ireland in 2003. This scheme has expanded year on year and now 27 30km squares, including 4 in Northern Ireland, are surveyed twice annually (see Fig 1). Robust data is being collected for 3 widespread and common species - *Pipistrellus pipistrellus*, *P. pygmaeus* and *Nyctalus leisleri* – but it is still too early to draw any conclusions

on population trends for these species. Distribution data for *P. nathusii* is also recorded by this scheme. Although this species has now been recorded for most Irish counties, no roosts have been located in the Republic of Ireland. A number of roosts are known from Northern Ireland. See <http://www.npws.ie/en/PublicationsLiterature/NPWSUnpublishedReports/> for the latest report on this project.

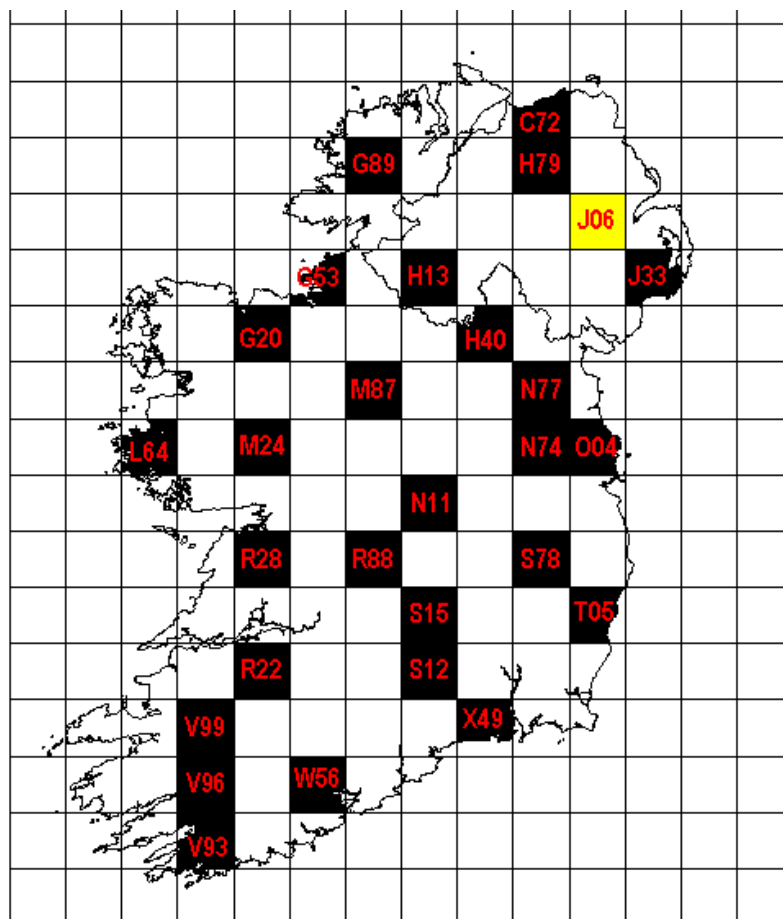


Fig. 1 The 30 km squares surveyed in the all-Ireland car-based bat monitoring programme. In 2009 J06 was surveyed only once; all other squares were surveyed twice. [Source: Bat Conservation Ireland]

iii) Waterways Bat Monitoring Scheme

A waterways survey was rolled out across the island of Ireland in 2006, with the cooperation of the Northern Ireland Environment Agency (NIEA). 185 survey teams took part in 2009 (fig. 2) and a total of 334 waterways sites, covering every county, have been surveyed to date. This scheme will continue in 2010. It is too early to determine population trends for this species, but the data gathered so far shows that this species is common and widespread throughout Ireland. As with the car-based survey, the waterways survey is coordinated by BC Ireland.

See <http://www.npws.ie/en/PublicationsLiterature/NPWSUnpublishedReports/> for the latest report on this project.

iv) Brown long-eared Bat Monitoring Scheme

A programme of brown long-eared bat monitoring began in 2008 and was expanded in 2009. 75 surveys were conducted in 2009 by 45 volunteers (fig. 3). This project will continue in 2010 with the specific aim of identifying 50 roosts suitable for long-term monitoring. It is too early to determine population trends for this species. This project is also managed for NPWS by

BCIreland. See <http://www.npws.ie/en/PublicationsLiterature/NPWSUnpublishedReports/> for latest report on this project.

v) Woodland *Myotis* Monitoring

The Centre for Irish Bat Research (see more on CIBR under 12. below) is conducting detailed survey work on our rarer *Myotis* spp. – *M. nattereri*, *M. mystacinus* and *M. brandtii*. Initial indications are that the first two species are reasonably widespread but not very common. No further records of *M. brandtii* have been confirmed despite extensive survey work. The status of this species in Ireland is unclear. CIBR will be making recommendations in 2011 on the best methods of monitoring these rare woodland bats in Ireland.

vi) BATLAS 2010

The BATLAS 2010 project was initiated in 2008 by BCIreland, with funding from NPWS and the Heritage Council. The primary objective of the project was to systematically survey a minimum of 600 10km squares using a standardised survey method to ascertain the current distribution of 4 widespread species:

- common pipistrelle
- soprano pipistrelle
- Daubenton's bat
- Leisler's bat

62 surveyors - a combination of experienced bat workers and trained volunteers - took part in the project which extended over two field seasons: April - November 2008 and 2009. Acoustic surveying of the four species of bats was conducted in each 10km square using tuneable heterodyne bat detectors. Three to four random sites per 10km square were chosen by each surveyor, at least one of which was required to have a water body.

In total, 647 of the 904 10km squares in Ireland (72%) were surveyed. The project has resulted in vastly updated distribution maps for the four target species. The final report is due to be published shortly.

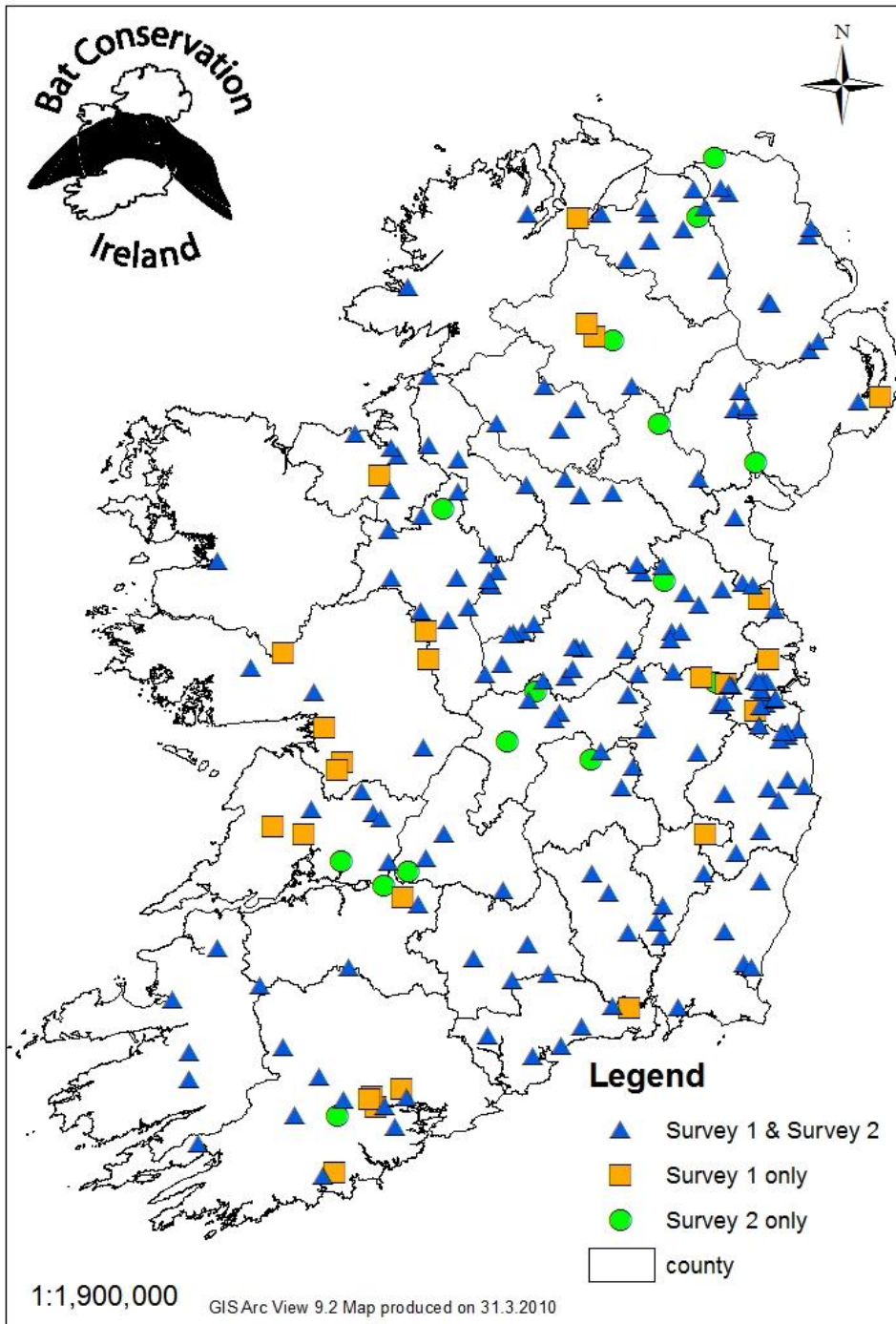


Figure 2: Waterway sites surveyed in 2009. [Source: Bat Conservation Ireland]

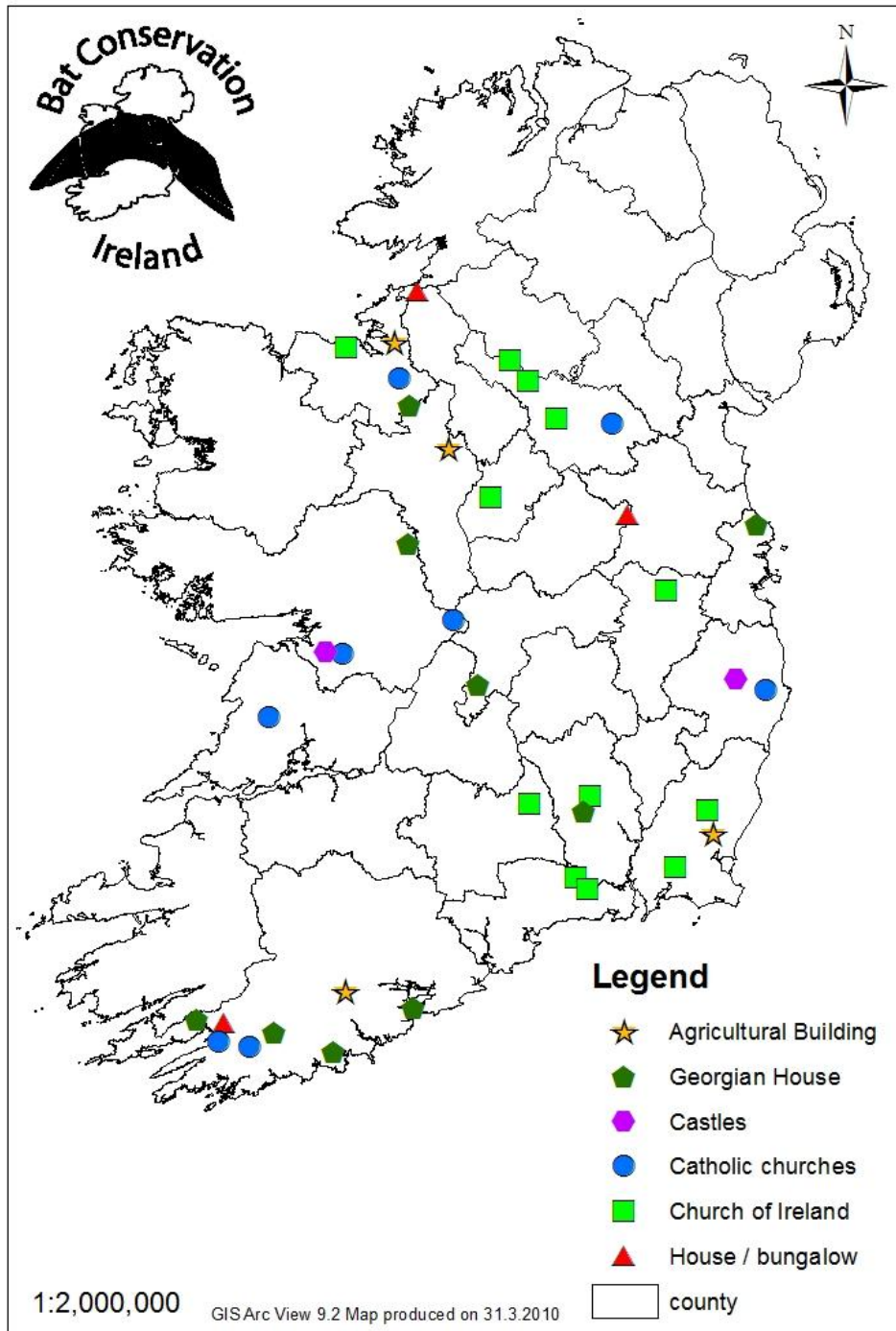


Figure 3: Brown long-eared roosts monitored in 2009 by building types (N=38).
 [Source: Bat Conservation Ireland]

3 Habitats and Roost Sites

Grilling has been carried out at a number of important *Rhinolophus hipposideros* roosts which had been suffering from disturbance. Re-roofing works have also been carried out at number of *Rhinolophus* maternity roosts in Kerry and Mayo.

The VWT continue to manage 12 reserves for *R. hipposideros* in Ireland. While most of these are roost-only sites, habitat management, including tree planting and hedgerow maintenance, is conducted at a number of sites as well.

Several important winter and summer roosts for this species occur in old buildings within woodlands owned by Coillte – the national forestry agency. Regular meetings take place at a

local level between Coillte staff and NPWS staff to ensure that woodland management at these sites is sensitive to the roosting, foraging and commuting requirements of the bats.

4 Threats

NPWS has recently published a Threat Response Plan for vesper bats in Ireland. In this plan, roost loss and disturbance, unsympathetic management of foraging and commuting habitats, water pollution, and windfarms have been identified as significant concerns. While measures are already in place to address aspects of these threats, further action is required in certain areas. This three year plan (2009 – 2011) sets out those actions, identifies who is responsible for implementing them and provides a time frame for delivery. Continuation of the current monitoring and education programmes, together with implementation of the additional actions identified in this document, should ensure the long term favourable conservation status of bats in Ireland. The Threat Response Plan can be read or downloaded as a pdf here:

<http://www.npws.ie/en/PublicationsLiterature/SpeciesActionPlans/>

A separate threat has been identified as of particular concern for the lesser horseshoe bat. The summer roosts of this species in Ireland are normally in old, derelict houses or farm buildings. Many of these buildings are falling into disrepair and as they do so they become less suitable for the bats and bat numbers can decline. In some cases, particularly when the roof is lost, the roosts may be abandoned. NPWS is looking at ways of ensuring the long term conservation status of lesser horseshoes in Ireland in the face of this threat.

5 Data collection, analysis, interpretation and dissemination

Data collection is ongoing. A standardised recording form has been developed and a centralised database for bat roost information is managed by BC Ireland. All data from the various monitoring schemes, including BATLAS 2010 and CIBR, is inputted to this database. The distribution data can be accessed from the BC Ireland website at:

<http://www.batconservationireland.org/index.php>

C Measures Taken to Implement Article III of the Agreement

6 Legal Measures

All bats in Ireland are protected under the Wildlife Acts [1976 and 2000] which make it an offence to deliberately kill or injure any bat species or to damage its roosts. This act is policed throughout the country by Conservation Rangers from the NPWS of the Department of the Environment, Heritage and Local Government.

Approximately 12 - 15 licences are issued each year under the *Wildlife Acts (1976 and 2000)* to facilitate bat research and bat surveys e.g. to undertake mist netting or radio-tagging studies.

As provided for under the EU Habitats Directive, derogations for the disturbance or destruction of bat roosts are issued, subject to strict criteria, under Article 25 of *European Communities (Natural Habitats) Regulations, 1997*.

7 Sites identified and protected

NPWS has an active programme of repairing/restoring lesser horseshoe roosts within SACs. The VWT employs a full-time field officer in Ireland and continues to manage a number of maternity roosts of the lesser horseshoe. See also B. 3 above.

8 Consideration given to important bat habitats

Detailed radio-tracking studies have been conducted at maternity roosts of *M. nattereri* and *M. mystacinus*. The data arising has provided valuable insights into the foraging habitats chosen by the species and allowed a habitat favourability model to be produced for the country. Publications on this research are in preparation by CIBR.

Bat detector and radio-tagging surveys, together with faecal analyses, have been carried out at a number of important *R. hipposideros* summer and winter roosts in Counties Galway and Clare.

These surveys have highlighted the importance of wetland and woodland sites as foraging habitat for this species. They have also reinforced the significance of hedgerows for commuting.

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

A new leaflet “*Bats in Houses – guidance for householders*” was published by NPWS in 2009. This leaflet provides detailed information for roost owners on living with bats, how to plan repairs or maintenance works, bats and the law etc. The leaflet has been widely distributed and is also available to download from the NPWS website: <http://www.npws.ie/en/WildlifePlanningtheLaw/Batsinhouses/>

The leaflet was launched by the Minister for the Environment, Heritage and Local Government, John Gormley, in June 2009 to coincide with the opening of a new freefone Bat Helpline. This Helpline, which has proven very popular and garnered significant positive publicity for bats, is manned by NPWS staff who have been trained to handle bat queries.

Reports from the various Bat Monitoring projects are published on the NPWS website: <http://www.npws.ie/en/PublicationsLiterature/IrishWildlifeManuals/>

NPWS have also published guidelines for developers and bat surveyors detailing how bats should be treated before, during and after development works. This publication – Bat Mitigation Guidelines for Ireland can be read or downloaded here:

<http://www.npws.ie/en/PublicationsLiterature/IrishWildlifeManuals/2006-2008/>

NPWS have also published a comprehensive review of Irish vesper bats, authored by Dr Kate McAney of the Vincent Wildlife Trust. It can be read or downloaded here:

<http://www.npws.ie/en/PublicationsLiterature/IrishWildlifeManuals/2006-2008/>

Several events are organised by NPWS staff and local bat groups around the country for European Bat Night each year. Both NPWS and BCIreland organise bat walks and bat talks at regular intervals.

Bat Conservation Ireland is continuing to grow and develop and is working on a number of projects with NPWS [see their website: www.batconservationireland.org].

10 Responsible bodies nominated for the provision of advice on bat conservation and management.

NPWS of the Department of the Environment, Heritage and Local Government is the body responsible for the provision of advice on bat conservation and management. A freefone Helpline is available for the public together with several publications on the protection and conservation of bats (see: www.npws.ie). Local NPWS offices organise bat walks and bat talks at regular intervals.

The Heritage Council, a statutory body, has funded the production of a booklet on the conservation and management requirements of all bat species in Ireland. Local authority Heritage Officers may also provide advice at a county level and are involved in local bat projects.

The Forest Service (FS) provide guidance to foresters in relation to bats. The FS, together with NPWS, have published an Irish version of the EUROBATs leaflet on Bats and Forests.

BCIreland provide a seasonal help-line for the provision of advice on bat related issues. They also organise bat walks, bat detector training courses and run bat identification weekends as well as a bi-annual bat conferences. The next conference will be in October 2010. See: <http://www.batconservationireland.org/php/events.php>

11 Additional action undertaken to safeguard populations of bats.

NPWS maintains a close working relationship with other government agencies, such as the Forest Service, and with non-governmental organisations involved in bat conservation, in particular The VWT and BC Ireland. NPWS in partnership with VWT has repaired sites and undertaken surveys and site monitoring.

The Heritage Council provides grant-aid for the renovation of historic buildings. The Heritage Council requires bat surveys to be undertaken in advance of any such works and where roosts occur mitigation is required to ensure that the roosts are protected.

12 Recent and ongoing programmes, including research programmes, relating to conservation and management of bats.

Centre for Irish Bat Research

In May 2008 NPWS awarded a three year contract worth almost €700,000 to a joint team from University College Dublin and Queens University Belfast to set up a new centre of excellence for bat research in Ireland. The research team consists of four principal investigators: Dr Emma Teeling and Professor Tom Hayden of UCD and Professor Ian Montgomery and Dr Paulo Prodohl of Queens University Belfast together with two post-doctoral researchers and two PhD students. The external advisors to the project are Prof. Paul Racey and Dr Manual Ruedi.

This Centre for Irish Bat Research (CIBR) is investigating the feeding ecology and population biology of our three woodland species - *Myotis nattereri*, *M. brandtii* and *M. mystacinus*. It is also examining novel ways of monitoring these species with a view to developing and informing best international practise in this field.

The project is taking a holistic approach to studying these species by using radio-telemetry to look at home ranges and habitat usage, genetics to look at population structure in Ireland and phylogeography, and GIS to develop a predictive distribution model for these species. An effective monitoring methodology will be one of the main contract deliverables from this three year project.

The first field season (2008) concentrated on surveying maternity roosts from historical records but also produced some exciting discoveries about bat swarming activity. Genetic samples from all roosts have also been collected to help answer taxonomic and phylogeographical questions. The second field season (2009) included a radio-tracking study of a *M. mystacinus* roost as well as work on diet, population genetics, echolocation calls, habitat associations, stable isotope analysis and molecular species identification of all three species. The third field season is underway with a radio-tracking study of a *M. nattereri* roost as well as further developments on the other work packages. A number of scientific publications are already being prepared. The final report from CIBR to NPWS is due next spring, but it is hoped that CIBR will continue to operate after this initial set-up contract has been completed, by attracting funding from other sources.

See also B. 2 and B. 3 above.

13 Consideration being given to effects of pesticides on bats.

No recent developments in this area.

D Functioning of Agreement

14 Co-operation with other Range States

Ireland is co-operating with other Range States and with other Member States of the EU in research and conservation matters. In particular, there is close cooperation between NPWS and NIEA in Northern Ireland and a number of bat monitoring schemes are now being conducted on an all-Ireland level. NPWS and NIEA have also worked together to develop a joint species action plan for bats and a new Red Data List of Irish Mammals.

A EUROBATS Intersessional Working Group on the protection of overground roosts, convened by Dr Ferdia Marnell, and involving co-operation with bat experts in Slovenia, the UK, Italy, Lithuania, France, Slovakia and Croatia, recently led to the publication of a guidance document. This can be downloaded from the EUROBATS website: http://www.eurobats.org/publications/publication_series.htm

15 Measures taken to implement MoP Resolutions

Resolutions 2.2 and 5.4 - Bat Monitoring

Details of monitoring programmes underway in Ireland have been forwarded to the relevant Working Group. The Irish Bat Monitoring Programme uses methods approved in the EUROBATS Bat Monitoring Guidelines.

Resolution 2.4 - Transboundary Programme – underground habitats

Underground habitats are particularly important for *Rhinolophus hipposideros* in Ireland. NPWS maintains a database of roost monitoring data for this species and the relevant underground information has been forwarded to the Working Group on underground habitats.

Resolutions 2.7 and 3.3 – Format of National Reports

National reports have been prepared accordingly to the new formats.

Resolution 3.8 - Foraging habitats

Survey work and diet analysis have been conducted at a number of *R. hipposideros* sites in Clare and Kerry. Data from these studies has been provided to the IWG addressing this issue. Ongoing work on the foraging habitats and diet of *M. nattereri* and *M. mystacinus* will also be forwarded to the IWG in due course.

Resolution 4.4 (2.4) - Transboundary programme – forest practices

NPWS and the Irish Forest Service recently produced a version of the EUOBATS leaflet on Forestry and Bats for Ireland.

www.agriculture.gov.ie/media/migration/forestry/publications/BatsAnd%20ForestryLeaflet040210.pdf

NPWS staff liaise on an ongoing basis with colleagues in Forestry to ensure that woodland management adjacent to important bats sites is undertaken sensitively.

Resolutions 4.6 and 5.5 – Guidelines for the Issue of Permits for the Capture and Study of wild bats

Licences are issued taking into consideration these guidelines.

Resolution 4.7 Wind turbines and bat populations

The EUROBATS guidance on wind turbines has been circulated widely in Ireland. The scale of the threat posed by wind turbines in Ireland is unclear but it is hoped that a study of this interaction will be initiated shortly.

Resolution 4.9 and 5.7 - Protection of overground roosts

Ireland has published *Bat Mitigation Guidelines for Ireland* and this is the standard reference document used by developers and bat surveyors across the country.

Resolution 5.2 – Bats and rabies in Europe

Rabies has not been identified in bats in Ireland. A study of Daubenton's bats at a roost in the south of the country produced inconclusive results. A small number of bats have subsequently been sent to the UK for rabies testing. All bat workers are advised to handle bats in the expectation that they may have rabies and are encouraged to get rabies vaccinations and to use gloves.
