

Agenda Item 2

Annual National Reports 2009

Document 2-10 rev.1

**Annual National Report
United Kingdom**

Action Requested

- Briefly present highlights from reports (max. 5 minutes)
- Take note of the information submitted
- Comment

Submitted by

United Kingdom



**NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR
OWN COPIES OF DOCUMENTS TO THE MEETING**

**Revised Format for the
ASCOBANS Annual National Reports**

General Information

Name of Party: United Kingdom	Period covered: 1 January – 31 December 2009
	Date of report: 31 March 2010

Report submitted by:	
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Any changes in coordinating authority or appointed member of advisory committee: NA	

List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details

Joint Nature Conservation Committee (JNCC). Contact: Eunice Pinn
eunice.pinn@jncc.gov.uk

Sea Mammal Research Unit. Contact: Simon Northridge spn1@st-andrews.ac.uk

UK Cetacean Strandings Investigation Programme (CSIP). Contact: Rob Deaville (Institute of Zoology) rob.deaville@ioz.ac.uk

NEW Measures / Action Towards Meeting the Objectives of the Conservation and Management Plan and the Resolutions of the Meeting of Parties

A. HABITAT CONSERVATION AND MANAGEMENT

1 Direct Interaction with Fisheries

The two main species affected by fishing in UK waters are the harbour porpoise and the short-beaked common dolphin.

Since Regulation 812/2004 came into force, for four years running (2005-2008 inclusive) there have been no observations of cetacean bycatch in any of the fleet segments listed for compulsory monitoring. Additional monitoring of pelagic trawl and static net fisheries was also undertaken for the purposes of Article 12 under the Habitats Directive and 'Scientific Studies' under Regulation 812/2004.

For 2008, the bycatch estimates of harbour porpoise in gillnet and tanglenet fisheries in the Irish and Celtic Sea areas was 498-1409 and for common dolphins 279-1019 (SMRU, 2009). The bycatch levels recorded are below 1.7% of the best population estimate and unlikely to represent a major conservation threat to either species. However, there are bycatches in many other European fisheries affecting the same biological populations. It is not yet possible to determine the cumulative significance of the various bycatch estimates.

The UK is committed to enforcing all aspects of Council Regulation 812/2004 and the provisions of the Incidental Catches of Cetaceans in Fisheries (England) Order 2005 in order to minimise cetacean by-catch. All Reports to European Commission on activities conducted by the UK under Regulation 812/2004, and under Article 12(4) of the Habitats Directive, provide details of the monitoring work undertaken and estimates of bycatch. All Reports can be found at:

<http://www.defra.gov.uk/foodfarm/fisheries/protect/cetaceans.htm>

Implementation of methods to reduce bycatch

The Marine Management Organisation (MMO) is England's enforcement body for fisheries matters. The MMO has continued to conduct training courses for the Fisheries Protection Squadron who undertake boarding at sea. This has raised awareness of cetacean and bird by-catch issues. The UK's Monitoring, Control and Surveillance System (MCSS) is now in place for boarding officers to record the number of cetaceans that have been captured as part of a fishing operation (as witnessed during a boarding) or any information given by the Master of the vessel regarding bycatch of cetacean and wild birds.

The use of acoustic deterrent devices as specified under Council Regulation 812/2004 has been problematic for the UK but we are committed to resolving these problems. UK fishing vessels have identified pinger deployment and safety issues during fishing operations and therefore the UK Government is striving to identify pingers that are safe for fisher to use and effective at deterring cetaceans through focused research on the issue.

The UK's research into acoustic deterrent devices is being carried out on behalf of Defra by the Sea Mammal Research Unit (SMRU). SMRU, in collaboration with SeaFish and the Fishing Industry are currently testing two versions of a more powerful, durable acoustic deterrent known as a Dolphin Dissuasive Device (DDD), looking at the effects these devices may have on the population distribution of harbour porpoises (as one of the key species of bycatch concern). Initial results on the efficacy of these pingers are promising,

with a significant reduction in porpoise bycatch associated with use of DDDs on gillnets and also very low bycatch rates of dolphins in trawls when DDDs have been used.

Defra is providing SMRU with additional funding for these trials to expand the scope of this work. We hope that this expansion will provide the project with the necessary data to be confident about the efficacy and practicality of use of the pingers.

We hope that in the next year we will be able to make an informed decision on the safety and effectiveness of these new devices, and so make a final decision on whether to implement and enforce the use of these DDD pingers across the whole of the UK fleet segment that is mandated to use them under Regulation 812.

In addition, please attach or provide link to your country's Report under EC Regulation 812/2004.

2 Reduction of Disturbance

2.1 Anthropogenic Noise

Following ASCOBANS request for Parties to introduce mitigation measures with respect to seismic surveys, the UK has presented data on 2D and 3D seismic survey activity in the UK maritime area for periods since 1997 at a number of ASCOBANS Advisory Committees and Meetings of the Parties over the past five years. The most recent update from the Department of Energy and Climate Change (DECC) is in the 'Information on Seismic Survey Activities by the United Kingdom 2008-2009' report. This report is available on request.

DECC recently prepared a report, jointly with the University of Aberdeen and Lighthouse Field Station, to provide the results of acoustic propagation modelling and prediction of underwater noise from seismic survey operations proposed for the Moray Firth region during 2010 and/or 2010. The report summarises operational and site specific data for the region based on the modelling of underwater noise propagating through the middle of the survey region. Additional modelling has also been undertaken to investigate the underwater noise propagating into shallower coastal waters inhabited by the bottlenose dolphin and porpoise.

Defra and the UK Ministry of Defence (MoD) have set up a Military Underwater Sound Stakeholder forum. This gives the opportunity for industry, non-government organizations and other interested stakeholders to engage directly with government to raise their concerns. Most recently, these discussions have helped lead to the development of a real-time alert procedure for naval training operations. This enables local information on unusual cetacean sightings, e.g. the presence of a species group closer to shore than is usual, to be incorporated into the training schedule and for operations to be relocated if necessary.

2.2 Ship Strike Incidents

Please list all known incidents and for each, provide the following information:

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
22/07/09	Scotven Bay, North Uist, Scotland	Mass stranding	Five white beaked dolphins (<i>Lagenorhynchus albirostris</i>) live stranded and were subsequently refloated by local volunteers. - further details available on request from CSIP
Various (2009)	Various	Mass stranding	Five other live stranding events involving two animals in each event (variety of species) in the UK during 2009. Several outcomes- further details available on request from CSIP

*Two or more animals

2.4 Pollution and Hazardous Substances

In 2009, analyses of long-term temporal trends in blubber concentrations of chlorobiphenyls (PCBs) (n=440; 1991-2005) and brominated diphenyl ethers (PBDEs) (n=415; 1992-2008) in UK-stranded harbour porpoises were conducted (Law et al. 2010; Law et al. *in review*). A non-parametric statistical method was used and potential confounding factors (area, season, by-caught or stranded, age class, sex, blubber thickness and lipid content) were investigated and found not to confound any of the trends identified. For PCBs, a standard suite of 25 CB congeners was determined throughout the study period and show a decline that is much slower than for organochlorine pesticides (e.g. DDTs). It also shows regional differences across the UK (e.g. lowest levels in Scotland). The reason for the slow decline in PCBs is likely due to both continuing diffuse inputs from e.g. PCB-containing materials in storage and in landfills where these were disposed of prior to the more stringent requirements for such sites being enacted, and to the substantial reservoir of PCBs already in the marine environment. Further efforts to limit or eliminate PCB discharges to the marine environment are still needed. Statistically robust case-control studies show strong evidence for PCB-induced infectious disease mortality in UK-stranded harbour porpoises (at mean blubber PCB concentrations around 20-25mg/kg lipid weight) (Jepson et al., 2005; Hall et al 2006). Even greater concerns exist in other species where the mean blubber PCB concentration in UK-stranded bottlenose dolphins is 100mg/kg lipid weight (n=15) (Jepson et al 2008) and 225mg/kg (n=5) in killer whales for the same period 1992-2005 (CEFAS data).

For BDEs, nine congeners were: BDE28, BDE47, BDE66, BDE85, BDE99, BDE100, BDE138, BDE153 and BDE154. The maximum Σ BDE concentration observed was 15.7 mgkg⁻¹ lipid wt in an animal which died in 1993. The median concentrations peaked around 1998, and have reduced by between 55% and 76% to 2008. The BDE congeners found in UK marine mammals arise primarily from the penta-mix PBDE product, which was banned in the EU in 2004.

A study was conducted by Sinead Murphy while based at the Sea Mammal Research Unit examining the effects of contaminants on the reproductive status of porpoises and common dolphins in a study funded by ASCOBANS.

Jepson, P.D., Bennett, P.M., Deaville, R., Allchin, C.R., Baker, J.R., Law, R.J. (2005) Relationships between polychlorinated biphenyls and health status in harbor porpoises (*Phocoena phocoena*) stranded in the United Kingdom. *Environmental Toxicology and Chemistry* 24, 238-248.

Jepson, P.D., Tregenza, N. and Simmonds, M.P. (2008) Disappearing bottlenose dolphins (*Tursiops truncatus*) – is there a link to chemical pollution? (Scientific Committee of the *International Whaling Commission* 2008)

Law, R.J., Bersuder, P., Barry, J., Deaville, R., Reid, R.J., Jepson, P.D. (2010) Chlorobiphenyls in the blubber of harbour porpoises (*Phocoena phocoena*) from the UK: levels and trends 1991-2005. *Marine Pollution Bulletin* 60, 470-473.

Law, R.J., Barry, J., Bersuder, P., Barber, J.L., Deaville, R., Reid, R.J., Jepson, P.D. Levels and trends of BDEs in blubber of harbour porpoises (*Phocoena phocoena*) from the UK, 1992-2008. (in review)

2.5 Other Forms of Disturbance

Between 1992 and 2004, incidences of acute and chronic gas embolic lesions have been identified in a number of species: short-beaked common dolphins (5 cases), Risso's dolphins (4 cases), harbour porpoises (2 cases) a Sowerby's beaked whale and a Blainville's beaked whale in UK waters (Jepson et al., 2005b; Jepson, 2006). Subsequent to these, no additional observations of gas emboli were observed in animals stranding in UK waters apart from a single case in a harbour porpoise from Northern Ireland in 2007 (Tony Patterson, pers com) and a Risso's dolphin in Wales in 2009.

3 Marine Protected Areas for Small Cetaceans

One potential offshore SAC, the Wyville Thompson Ridge, identified for its habitat features, lists bottlenose dolphins. This site is likely to be submitted to the European Commission for consideration in October 2010 (see (<http://www.jncc.gov.uk/page-4535>)).

Work is continuing in the UK to identify additional sites for harbour porpoise. A public consultation has recently been completed for three offshore sites which were identified for their habitat features, but also list harbour porpoises (see <http://www.jncc.gov.uk/page-3995>). These are North West Rockhall pSAC, Haisborough, Hammond and Winterton pSAC and Inner Dowsing, Race Bank and North Ridge pSAC. The Government has yet to decide whether to submit these pSACs to the European Commission in October 2010.

Please indicate where GIS data of the boundaries (and zoning, if applicable) can be obtained (contact email / website).

SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

One of the key requirements of Article 11 of the Habitats Directive is the development of a strategic monitoring and surveillance programme for cetaceans to provide an ability to undertake systematic assessments. Such a programme is currently under development by JNCC as part of the UK Marine Monitoring and Assessment Strategy (UKMMAS), through collaboration with the other Countryside Agencies and the Sea Mammal Research Unit

(University of St Andrews). The programme will take a 'natural' population approach and JNCC are therefore discussing how to take an internationally coordinated approach with other Member States through ICES and ASCOBANS. As of this mechanisms are being developed that will enable as much of the cetacean surveillance undertaken in European waters by agencies, research bodies and the voluntary sector to be included and used in the conservation status assessments through JCP, a web-based portal for effort-related sightings data.

At the individual country level, surveying and monitoring has been undertaken in Welsh waters for various species including bottlenose dolphin, harbour porpoise, Risso's dolphin and baleen whales.

In Scotland, a variety of projects are ongoing focusing on abundance, stock structure and diet of killer whales, distribution and habitat preferences of white beaked dolphins, and the distribution, abundance and population structure of bottlenose dolphins. In England, assessing distribution and abundance of white beaked dolphins has recently commenced off the Northumberland coast.

The Northern Ireland Environment Agency (NIEA) have implemented a systematic cetacean monitoring programme. Monthly shore-based effort watches are now conducted from 12 key sites using a standard monitoring methodology. This provides data from inshore waters to address local management issues and the potential identification of SACs in future years.

4.2 New Technological Developments

Please provide a brief summary of any relevant information

4.3 Other Relevant Research

Countryside Council for Wales (CCW) had 6 TPODs deployed in coastal locations in the Cardigan Bay SAC. The use of acoustic data loggers such as TPODs provide a method of collecting data continuously irrespective of light and weather conditions and is particularly useful for collecting data on rates of habitat use and revealing diel cycles of activity about which we currently know little. Bottlenose dolphin and harbour porpoise detection rates are negatively correlated and increased competition for limited prey may be a factor that may also be a reason for the rise in porpoise deaths resulting from attacks by bottlenose dolphin.

B. USE OF BY-CATCHES AND STRANDINGS

5 Post-Mortem Research Schemes

Contact details of research institutions / focal point	UK Cetacean Strandings Investigation Programme (CSIP). Contact point- Rob Deaville, Institute of Zoology, Regents Park, London, NW1 4RY, ENGLAND
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Methodology used (reference, e.g. publication, protocol)	Methodology in Jepson <i>et al</i> (2005) followed (Jepson, P.D. (editor) (2005) Cetacean Strandings Investigation and Co-ordination in the UK 2000-2004. Final report to the <i>Department for Environment, Food and Rural Affairs</i> . Pp 1-79. http://randd.defra.gov.uk/Document.aspx?Document=WP01011_8244_FRP.pdf
Collection of samples (type, preservation method)	A range of samples are routinely collected according to the method of Jepson <i>et al</i> (2005). A variety of tissues are routinely sampled for any bacteriological, virological and/or histopathological investigations when deemed appropriate. Any non-routine samples are also collected as necessary. A number of preservation methods are employed; <ul style="list-style-type: none"> • stored frozen at -20°C or -80°C; • stored in 70% ethanol (parasites); • or in 10% buffered formalin (fixed samples)
Database (Number of data sets by species, years covered, software used, online access)	The CSIP holds data on over 9600 cetaceans which were found stranded around the UK between 1990 and 2009. In addition, detailed pathological data is also held on over 2700 UK stranded cetaceans which were necropsied by the CSIP during the same period. Data collected on strandings and during necropsies are now routinely recorded in a recently created web-accessed relational database (http://data.ukstrandings.org). A proportion of data held on this system will be made publicly available via the NBN gateway (http://www.nbn.org.uk/).
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	Further information on the CSIP is available at www.ukstrandings.org . Intellectual property rights to the data directly generated as a result of CSIP research belong to Defra. Institute of Zoology have recently submitted a proposal to the ASCOBANS Secretariat, on a feasibility study into the creation of a centralised point of access for selected data collected by stranding networks within the ASCOBANS region. If successful, it is hoped that this will be the first step towards the creation of a central database on strandings and necropsies, encompassing ASCOBANS Parties and Range

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
Harbour porpoise (<i>Phocoena phocoena</i> , n=50)	Bottlenose Dolphin Attack (n=9) Starvation (neonate) (n=9) Starvation (n=9) Bycatch (n=6) Live Stranding (n=3) Dystocia and/or Stillborn (n=3) Pneumonia, Parasitic and Bacterial (n=3) Pneumonia, Parasitic (n=2) Physical Trauma (n=1) Generalised Bacterial Infection (n=1) (Meningo)encephalitis (n=1) Gastritis and/or Enteritis (n=1) Others (n=1) Not Established (n=1)
Short-beaked common dolphin (<i>Delphinus delphis</i> , n=15)	Bycatch (n=9) Physical Trauma, Boat/ship strike (n=1) (Meningo)encephalitis (n=1)

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	Starvation (neonate) (n=1) Dystocia and/or Stillborn (n=1) Others (n=1) Not Established (n=1)
Striped dolphin (<i>Stenella coeruleoalba</i> , n=7)	Live Stranding (n=3) Starvation (n=2) Generalised Bacterial Infection (n=1) (Meningo)encephalitis (n=1)
White beaked dolphin (<i>Lagenorhynchus albirostris</i> , n=6)	Live Stranding (n=5) Not Established (n=1)
Northern bottlenose whale (<i>Hyperoodon ampullatus</i> , n=5)	Live Stranding (n=3) Others (n=1) Starvation (n=1)
Bottlenose dolphin (<i>Tursiops truncatus</i> , n=2)	Bycatch (n=1) Not Established (n=1)
Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i> , n=2)	Live Stranding (n=2)
Minke whale (<i>Balaenoptera acutorostrata</i> , n=2)	Physical Trauma, Boat/ship strike (n=1) Not Established (n=1)
Risso's dolphin (<i>Grampus griseus</i> , n=1)	Gas Embolism (n=1)
Humpback whale (<i>Megaptera novaeangliae</i> , n=1)	Starvation (n=1)
Long-finned pilot whale (<i>Globicephala melas</i> , n=1)	Not Established (n=1)

CSIP Annual Report to Defra for the period 1st January-31st December 2008
http://randd.defra.gov.uk/Document.aspx?Document=WC0601_8030_ANN.pdf

C. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

The Habitats Directive requires Member States to take the necessary measures to establish a system of strict protection for all cetaceans that includes the issue of disturbance. JNCC in collaboration with the other Countryside Agencies developed guidance for those carrying out activities in the marine environment, to help determine the likelihood of committing an offence, how this can be avoided, and, as a last resort, whether the activity could go ahead under licence. With respect to the consequence of certain developments, if the activities involved are not likely to be detrimental to the Favourable Conservation Status of a population but a cetacean species could still be harmed (injured or significantly disturbed), then the applicant should apply for a licence from the relevant regulator to undertake these activities should mitigation or alternative solutions not be viable.

D. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

Defra hosted 'Marine Month' in March 2010 to raise awareness across the whole department of issues relating to the marine environment. As part of this, ASCOBANS

provided an exhibition to highlight the work, aims and objectives of the Agreement.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

Please provide any relevant information.

Please return this form, preferably by e-mail, to:

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