

Agenda Item 2

Annual National Reports 2010

Document 2-10

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: 2010
	Date of report: 31 March 2011

Report submitted by:	
Name: James Gray	Function: UK ASCOBANS Coordinator
Organization: Department of Environment Food and Rural Affairs (Defra)	Address: Sea Fisheries and Cetacean Conservation Team, Nobel House, 17 Smith Square, London SW1P 3JR
Telephone / Fax: +44 207 238 4392	Email: james.gray@defra.gsi.gov.uk
Any changes in coordinating authority or appointed member of advisory committee - N/A	

<p>List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details</p> <p>Joint Nature Conservation Committee (JNCC). Contact: Eunice Pinn eunice.pinn@jncc.gov.uk</p> <p>UK Cetacean Strandings Investigation Programme (CSIP). Contact: Rob Deaville (Institute of Zoology) rob.deaville@ioz.ac.uk</p> <p>Sea Mammal Research Unit (SMRU). Contact: Simon Northridge spn1@st-andrews.ac.uk</p>

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

Please feel free to add more rows to tables if the space provided is not sufficient.

A. HABITAT CONSERVATION AND MANAGEMENT

1 Direct Interaction with Fisheries

Investigations of methods to reduce bycatch

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

A dedicated monitoring scheme is operated by the SMRU, while collaborative links with the three fishery research laboratories in the UK also allow selected observations from the Discard Sampling Programmes to be included in our assessment of cetacean bycatch. The observer scheme relies upon good collaborative links with industry. Nevertheless fisheries regulations were enacted in England and Scotland to ensure that there is also a legal obligation for skippers and owners to take observers when asked to do so.

The principle area of concern for cetacean bycatch remains the south-western waters of the Western Channel and Celtic Sea. The situation in the North Sea remains unclear as only limited monitoring has been done since the late 1990s. Monitoring is now being focused on these two areas and as sufficient data is compiled, more robust estimates of current bycatch rates will become available.

The UK is now undertaking more limited monitoring in its pelagic trawl fleets, except where cetacean bycatch is known to be a concern, or where there is insufficient information to form an assessment of likely bycatch rates. Most sampling effort is now directed at under 15m vessels using static gears in subareas VII and IV, while the over 12m vessels that are involved in ongoing trials of acoustic mitigation devices are also subject to ongoing collaborative study.

Reports can be found at:

<http://ww2.defra.gov.uk/environment/marine/protect/species/cetaceans/>

Details of our mitigation work are included below.

Implementation of methods to reduce bycatch

Work on mitigation continues to focus on the use of one specific type of acoustic deterrent device (DDD).

These devices (DDD03F) are being used in the UK component (outside 12NM) of the midwater pair trawl fishery for bass in the Western English Channel with continued success. A variant of the same device (DDD03H) is being adopted by the over 12m gill and tangle net fleet in the Western Channel and Celtic Sea. Observations on this fleet segment continue to demonstrate the effectiveness of these devices in minimising porpoise bycatch, but the effects on common dolphins is not yet clear.

We have expanded this work by purchasing further devices, which have been deployed in static net fisheries in the Southwest and the North Sea. We hope the extra information this provides will allow us to make firm conclusions on the devices effectiveness and safety by spring 2011.

Work has also been undertaken on determining how tangle net design influences porpoise and seal bycatch rates, and how such features might be adapted to minimise bycatch rates. Paired sets of nets fished in the same general area were tested and passive acoustic

monitoring used to determine how porpoises interact with nets.

The initial acoustic monitoring showed little difference in porpoise activity around three nets rigged in different ways, which does not suggest any obvious way of modifying such nets to make them less attractive or more detectable to porpoises. Additionally, the influence of net design on the probability of a bycatch event occurring is being investigated. The existing data does not provide a clear picture of the main factors involved in determining bycatch rates, but mesh size, twine diameter and net height all appear to be implicated.

Please provide any other relevant information, including bycatch information from opportunistic sources.

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

Please reference and briefly summarise any studies undertaken

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 2010' report. This report also covers 4D surveys undertaken, and is available on request.

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

*Two or more animals

2.4 Pollution and Hazardous Substances

Please report on main types of pollution and hazardous substances (including source, location and observed effects on cetaceans). Please provide information on any new measures taken to reduce pollution likely to have an impact.

During 2010, Defra funded the analysis of retrospective samples from 100 harbour porpoises (2004-2008) for chlorinated biphenyls (PCBs), organochlorine pesticides (OCs) and brominated diphenyl ethers (flame retardants, PBDEs). Analyses are ongoing at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS, <http://www.cefas.co.uk/>) and results are expected to be available later in 2011, progressing work towards a 20 year time series of marine contaminant analysis in UK stranded harbour porpoises.

In 2010, analyses of long-term temporal trends in blubber concentrations of PCBs (n=440; 1991-2005) (Law et al. 2010a) and PBDEs (n=415; 1992-2008) (Law et al. 2010b) in UK-stranded harbour porpoises were published. 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. Summed PCB concentrations in UK harbour porpoises are declining only slowly from 1991-1997 and then leveled off up to 2005 as a result of a ban on the use of PCBs which began more than two decades ago (Law et al 2010a). This decline is much slower than that observed for organochlorine pesticides (such as DDTs and dieldrin). There are also regional differences in PCBs and OC pesticide levels within UK waters (lower levels in Scotland), possibly reflecting differences in diffuse inputs and transfer between regions, e.g via the atmosphere. The reason for the slow PCB decline is not known but likely to involve continuing diffuse inputs from e.g. PCB-containing materials in storage, construction and in landfills, 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.

PCB exposure data has also been generated for UK-stranded bottlenose dolphins (n=15) (Jepson et al 2008) and killer whales (n=5) for the same period (1991-2005) (ICES 2010). The mean level for PCBs in UK-stranded bottlenose dolphins was almost 100,000ng/g lipid weight (Jepson et al 2008) and 225,000ng/g lipid weight for the killer whales (ICES 2010). Although these data are from stranded animals, they show that PCB exposures are similar or greater than levels in biopsied bottlenose dolphins in the SW Atlantic such as Indian River Lagoon (Florida, US), Sarasota Bay (Florida, US) and Charleston (North Carolina, US) (ICES 2010). PCB blubber levels in UK-stranded killer whales are also similar to the very highest PCB levels recorded in adult transient male killer whales blubber in British Columbia, Canada (ICES 2010). Given the concerns about high PCB levels, ASCOBANS funded IoZ to co-ordinate a project to assess PCB exposure in stranded bottlenose dolphins in European waters (€9750) (Project ref: SSFA/ASCOBANS/2010/3).

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 (Law et al 2010b).

ICES. 2010. Report of the Working Group on Marine Mammal Ecology (WGMME), 12-15 April 2010, Horta, The Azores. ICES CM 2010/ACOM:24. 212 pp.

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. (2010a) 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., Jon Barry, Philippe Bersuder, Jon Barber, Rob Deaville, Robert J. Reid and **Paul D. Jepson** (2010) Levels and trends of BDEs in blubber of harbor porpoises (*Phocoena phocoena*) from the UK, 1992 – 2008 *Environmental Science & Technology* 44, 4447–4451.

2.5 Other Forms of Disturbance

Please provide any other relevant information, e.g. relating to recreational activities affecting cetaceans.

The Ceredigion County Council study of cetacean site use and boat traffic along the Marine Heritage Coast and Cardigan Bay SAC is in its 18th year with over 8000 hours of volunteer effort.

3 Marine Protected Areas for Small Cetaceans

Please provide any relevant information on measures taken to identify, implement and manage protected areas for cetaceans, including MPAs designated under the Habitats Directive and MPAs planned or established within the framework of OSPAR or HELCOM.

The Wyville Thompson Ridge cSAC, identified for its habitat features, lists bottlenose dolphins as a feature of the site was submitted to the European Commission for consideration in October 2010. Three offshore sites which were identified for their habitat features, but also list harbour porpoises as a feature were also submitted. These are North West Rockhall Bank cSAC, Haisborough, Hammond and Winterton cSAC and Inner Dowsing, Race Bank and North Ridge cSAC. Following submission, these sites are now being managed as if they were designated SACs.

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

<http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030355>

<http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030363>

<http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030370>

<http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030369>

B. SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

Please provide a brief summary of (and reference to) any national work.

The Sea Mammal Research Unit has used spatial modelling to estimate abundance and explore species-habitat relationships of cetaceans in European Atlantic waters. The analysis combined data from SCANS-II (surveyed in 2005), CODA (surveyed in 2007) and the Faroes block of TNASS (surveyed in 2007). Species for which abundance could be estimated were: harbour porpoise, white-beaked dolphin, white-sided dolphin (*Lagenorhynchus acutus*), bottlenose dolphin (*Tursiops truncatus*), short-beaked common dolphin, striped dolphin (*Stenella coeruleoalba*), long-finned pilot whale, minke whale, fin whale, sperm whale, and all beaked whale species combined. Results of these analyses will become available in the coming year.

Countryside Council for Wales (CCW) Monitoring report No. 68. CCW has contracted Sea Watch Foundation to collate and analyse all available cetacean distribution and abundance data, provided by various NGOs, developers and CCW. This has resulted in a high resolution dataset for Wales based on a GIS platform and will underpin CCW's advice on protected areas and oil, gas and renewable energy exploration.

A Bottlenose Dolphin PhotoID study continues in collaboration with CCW, Sea Watch Foundation and Marine Awareness North Wales. We now know a significant proportion of the Cardigan Bay SAC population use these waters during autumn and winter their use of the area extends to the Dee Estuary and Isle of Man.

In Jersey the marine biology section of the Societe Jersiaise are now responsible for receiving and collating information from the public concerning cetacean sightings. This data is available online. Sighting data is also recorded by the States of Jersey Fisheries Protection Vessel and a summary is published in the section's Annual Report.

4.2 New Technological Developments

Please provide a brief summary of any relevant information

4.3 Other Relevant Research

Please provide a brief summary of any relevant information

Charting progress 2

In 2010, *Charting Progress 2* is a comprehensive report on the state of the UK seas was published by the UK Marine Monitoring and Assessment community, which has over 40 member organisations. The report is based on a robust, peer-reviewed evidence base and describes progress made since the publication of *Charting Progress* in 2005. It provides key findings from UK marine research and monitoring for use by policy makers and others, and will form the basis of the UK's first report for the Marine Strategy Framework Directive. The report includes a summary cetacean section. During 2011, the feeder chapter for this summary section will be published.

Charting progress 2 is available from <http://chartingprogress.defra.gov.uk/>

Joint Cetacean Protocol (JCP)

The JCP was first introduced at the 2007 AC meeting. This is a web based portal for the collection and collation of effort-related sightings data. In 2010, the Phase I analysis was completed, which focused on a subset of Irish Sea data. Density surface models were fitted to combined data sets, by generalising available line transect sightings data to data that did not include distances to obtain estimates of density. Density surfaces varying in time could be successfully predicted for harbour porpoise, minke whale, bottlenose dolphin, common dolphin and Risso's dolphin. A power analysis showed that, for harbor porpoises, bottlenose dolphin and common dolphin, quite small declines in modelled population density (0.3-2.2% per year) over a 6-year reporting period could be detected with power of 0.8, for the latter part of the survey. For other species and earlier time periods, only very large changes in modelled population density would be detectable. The report is available from:

<http://www.creem.st-and.ac.uk/len/papers/PaxtonJNCC2010.pdf>

Funding has recently been secured to undertaken a full analysis of the distribution and relative abundance estimates (including 95% confidence intervals, trends and the power to detect those trends) for all cetaceans in European Atlantic waters. The results are expected to provide a substantial contribution to the reporting requirements of the Habitats Directive and, potentially, MSFD.

The European Commission are currently developing the guidance for Article 17 reporting under the Habitats Directive (FCS) required in 2013. Following feedback from various Member States and ICES (2009) on the 2007 reporting round for cetaceans, there will be a much greater emphasis on the need for transboundary reports for relevant species. It is likely that the outputs of the JCP will provide the necessary distribution and abundance information for the compilation of transboundary reports.

C. 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. rob.deaville@ioz.ac.uk
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	The CSIP holds data on over 10000 cetaceans which were reported stranded around the UK between 1990 and 2010. In addition, detailed pathological data is also held on nearly 2900 UK stranded cetaceans which were necropsied by

Revised Format for the ASCOBANS Annual National Reports

species, years covered, software used, online access)	the CSIP during the same period. Data collected on strandings and during necropsies are routinely recorded in a web-accessed relational database (http://data.ukstrandings.org). A proportion of data held on this system is also made available to the public via a Defra funded portal, the NBN gateway (http://www.nbn.org.uk/).
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	<p>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.</p> <p>At the ASCOBANS AC meeting in Bonn in 2010, the ASCOBANS Secretariat agreed to fund IoZ to co-ordinate a feasibility study into the creation of a centralised point of access for selected data collected by stranding networks within the ASCOBANS region (€8500) (Project ref: SSFA/ASCOBANS/2010/2). 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 states.</p> <p>A workshop part organized by Defra funded CSIP staff was held at the European Cetacean Society Conference in Cadiz on 19th March 2010 to discuss the ASCOBANS database proposal. Fifty three attendees from 11 different countries came to the workshop, presentations were delivered by representatives of stranding/necropsy networks in nine different countries. Outline fields for a putative database were agreed and three working groups were suggested to take forward further discussion on strandings data, necropsy data (causes of death) along with technical/database development. The IoZ authored report to the ASCOBANS Secretariat is due to be submitted in November 2011.</p>

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
Harbour porpoise (<i>Phocoena phocoena</i> , n=68)	Bycatch (n=13) Starvation (n=10) Bottlenose Dolphin Attack (n=7) Pneumonia, Parasitic (n=7) Starvation (neonate) (n=5) Pneumonia, Parasitic and Bacterial (n=4) Generalised Bacterial Infection (n=4) Gastritis and/or Enteritis (n=3) Dystocia & Stillborn (n=3) Others (n=3) Physical Trauma (n=2) Live Stranding (n=2) Pneumonia, Bacterial (n=1) Pneumonia, Parasitic and Mycotic (n=1) (Meningo)encephalitis (n=1) Not Established (n=2)
Short-beaked common dolphin (<i>Delphinus delphis</i> , n=9)	Bycatch (n=3) (Meningo)encephalitis (n=2) Gastritis and/or Enteritis (n=2) Live Stranding (n=1)

Revised Format for the ASCOBANS Annual National Reports

	Others (n=1)
Minke whale (<i>Balaenoptera acutorostrata</i> , n=5)	Live Stranding (n=3) Entanglement (n=1) Starvation (n=1)
Risso's Dolphin (<i>Grampus griseus</i> , n=5)	Live Stranding (n=2) Bycatch (n=1) Dystocia & Stillborn (n=1) Starvation (neonate) (n=1)
White beaked dolphin (<i>Lagenorhynchus albirostris</i> , n=4)	Bycatch (n=1) Live Stranding (n=1) (Meningo)encephalitis (n=1) Starvation (neonate) (n=1)
Bottlenose dolphin (<i>Tursiops truncatus</i> , n=3)	Others (n=1) Not Established (n=2)
Striped dolphin (<i>Stenella coeruleoalba</i> , n=3)	Live Stranding (n=1) Starvation (n=1) Pneumonia, Bacterial (n=1)
Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i> , n=2)	Live Stranding (n=1) (Meningo)encephalitis (n=1)
Sperm whale (<i>Physeter catodon</i> , n=1)	Starvation (n=1)
Long-finned pilot whale (<i>Globicephala melas</i> , n=1)	Live Stranding (n=1)
Sowerby's beaked whale (<i>Mesoplodon bidens</i> , n=1)	Live Stranding (n=1)

Please provide any other relevant information on post-mortem / stranding schemes.

CSIP Annual Report to Defra for the period 1st January-31st December 2009

(published in 2010,

http://randd.defra.gov.uk/Document.aspx?Document=WC0601_9167_ANN.pdf)

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

Please provide any relevant information.

As of 1st April 2010, the Marine Management Organisation (MMO) became responsible for certain marine nature conservation enforcement and management in the UK. This includes the issuing of Marine Mammal Mitigation Protocols (MMMPS), put in place to prevent harm to marine mammals. Compliance inspections take place to ensure required projects adhere to their MMMPS.

The MMO also has responsibility for implementing and enforcing bylaws (under section 129 of the Marine and Coastal Access Act 2009) and other management measures in current and new Marine Protected Areas when considered necessary, including those that will include small cetaceans as a designated feature.

Training in these new enforcement responsibilities has been given to coastal officers and the Royal Navy Fisheries Protection Squadron, who carry out enforcement duties on the MMOS behalf.

E. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

Please report on any public awareness and education activities to implement or promote the Agreement to the general public and to fishermen.

A Defra funded CSIP team conducted a necropsy workshop in Athlone Ireland on 15th December which had been organised by the Irish Whale and Dolphin Group (IWDG, <http://www.iwdg.ie/>). The CSIP team demonstrated necropsies on three common dolphins and one striped dolphin to over 15 vets from around Ireland along with several staff from IWDG. IWDG aimed to use the necropsy workshop to train interested vets in cetacean necropsy techniques, with a view to increasing potential coverage around Ireland for prospective necropsies.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

Please provide any relevant information.

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

UNEP/CMS/ASCOBANS Secretariat
UN Campus
Hermann-Ehlers-Str. 10
53113 Bonn
Germany

Tel: +49 228 815 2416
Fax: +49 228 815 2440
Email: ascobans@ascobans.org