

Agenda Item 13

National Reporting

Document 13.j

**2012 Annual National Report  
United Kingdom**

**Action Requested**

- Take note
- Comment

Submitted by

United Kingdom



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



# 2012 ASCOBANS Annual National Reports

This format for the ASCOBANS Annual National Reports was endorsed by the 6th Meeting of the Parties in 2009. Reports are due to be submitted to the Secretariat by 31 March of each year.

Parties are requested to use this report to provide NEW information on measures taken or actions towards meeting the objectives of the Conservation and Management Plan and the Resolutions of the Meeting of the Parties.

The 7th Meeting of the Parties in 2012 agreed to move to online reporting with immediate effect. In order to benefit fully from the opportunities for synergies among CMS Family treaties afforded by this tool, Parties decided that a revised national report format be developed by a small working group assisted by the Secretariat for consideration by the Advisory Committee in preparation for the 8th Meeting of the Parties. While retaining the questions related only to ASCOBANS, it should align more closely to the format used in CMS, AEWA and EUROBATS.

## General Information

Name of Party  
> United Kingdom

Report submitted by

Name	James Gray
Function	UK ASCOBANS Coordinator
Organization	Department for Environment Food and Rural Affairs (Defra)
Address	Nobel House, 17 Smith Square, London SW1P 3JR
Telephone/Fax	+44 207 238 4392
Email	james.gray@defra.gsi.gov.uk

## Changes

Changes in Coordinating Authority or appointed Member of the Advisory Committee  
> None

## List of National Institutions

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

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

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

# Habitat Conservation and Management

## Fisheries Interactions

### Direct Interaction with Fisheries

#### 1.1 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 most recent two reports (2012 and 2011) can be found under the project code 'MB5203' at:  
<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535&FromSearch=Y&Publisher=1&SearchText=cetacean%20bycatch&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>

Details of our mitigation work are included below.

#### 1.2 Implementation of methods to reduce bycatch

> Monitoring of vessels using pingers (DDD-03L) is being continued under the heading of "scientific studies" as required by Regulation 812/2004, but at a relatively low level in comparison to preceding years. A total of 131 hauls with pingers were monitored in 2012. Dolphin and porpoise bycatches are being recorded using GPS positions, as are the locations of DDDs being used on the same fleets which will allow us to assess if the efficacy of these devices changes over time. Seal damage levels to the commercial fish catch is also being routinely recorded.

The UK's Marine Management Organisation (MMO) and the Marine Scotland Compliance and Enforcement Unit have pinger detection units that are being used to determine compliance at sea.

The most accurate bycatch estimates for 2012, taken from the Annex to the UK annual report to the commission on the implementation of regulation 812/2004 in 2012, were of 821 harbour porpoises (*Phocoena phocoena*: 95% CI 510-1338) and 257 short-beaked common dolphins (*Delphinus delphis*: 95% CI 132-475) from static net fisheries in the Irish Sea, Western English Channel and Celtic Shelf (ICES divisions VIIaefghj). Caveats apply to these estimates. An estimated 492 seals, thought to be predominately grey seals (*Halichoerus grypus*: 95% CI 358-700) were also bycaught in this area.

The MMO is checking for compliance on the use of acoustic deterrent devices, including use of DDD-03Ls, in the over-12m static net fleet fishing in ICES Division VII as specified in Annex I of the Regulation. The MMO has liaised with industry regarding meeting their obligations under the Regulation. A similar device (DDD-03F) is being used on a voluntary basis on vessels participating in the small winter mid-water trawl fishery for bass (see UK Report under Regulation 812/2004).

#### 1.3 Other relevant information

Other relevant information, including bycatch information from opportunistic sources

> None

## 1.4 Report under EC Regulation 812/2004

Please provide the link to your country's report under EC Regulation 812/2004.

> None

## Reduction of Disturbance

### 2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

> Marine Licences issued for large construction projects at sea such as wind farms, include instructions to reduce piling noise levels. Marine Mammal Monitoring Protocols (MMMP) include observation, cessation of piling when cetaceans observed in the area and soft start procedures followed by gradual increase in noise levels to minimise negative impact on cetaceans.

Scotland Natural Heritage (SNH) Commissioned a Report: The development of a framework to understand dolphin behaviour and from there predict the population consequences of disturbances for the Moray Firth bottlenose dolphin population. Available at: <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1958>

See also:

- Brown, V. In press. Marine Renewable Energy: A Global Review. A WDC Report.

-Dolman et al. In press. Fulfilling EU laws to ensure marine mammal protection during marine renewable piling operations. Poster presentation to the Third International Conference on the Effects of Noise on Aquatic Life , August 11-16, 2013, BUDAPEST, Hungary

-Simmonds et al. 2013. Marine noise pollution – signs of progress: a preliminary review. <http://events.iwc.int/index.php/scientific/SC65a/paper/viewFile/267/483>

### 2.2 Ship Strike Incidents

Please list all known incidents and provide information separately for each

	<b>Incident 1</b>	<b>Incident 2</b>	<b>Incident 3</b>	<b>Incident 4</b>	<b>Incident 5</b>
Date	01/08/13				
Species	Fin whale				
Type of Injury	Excised tail				
Fatal Injury (Yes/No)	Unknown- dead on arrival into port, post-mortem examination not possible				
Type of Vessel (length, tonnage, speed)	Brought into port dead on front of cargo vessel				
Location (coordinates)	Portsmouth harbour				
More Information (name, email)	rob.deaville@ioz.ac.uk				

### 2.3 Major Incidents

Major Incidents Affecting Significant Numbers of Cetaceans (two or more animals)

	Incident 1	Incident 2	Incident 3	Incident 4	Incident 5
Date	14/08/12	23/08/12	02/09/12	09/11/12	
Location	Firth of Forth, Scotland	Ardesier, Highland, Scotland	Pittenweem, Fife, south-east Scotland	Gott Bay, Argyll and Strathclyde, Scotland	
Type of Incident	Mass stranding	Mass stranding	Mass stranding	Mass stranding	
Further Information	Two Sowerby's beaked whales live stranded and died in the upper Forth estuary.	Three white-beaked dolphins found dead stranded at Ardesier. Post-mortems revealed that they had live (mass) stranded.	A pod of 31 long finned pilot whales ( <i>Globicephala melas</i> ) stranded at Pittenweem on the morning of 2nd September. Rescue efforts led to the successful refloat of 10 of the stranded animals, but 21 died, with a further dead whale later discovered in the nearby port of Leith in Edinburgh. Necropsies were carried out on all 22 dead animals by CSIP teams from around the UK. A Marine Scotland funded investigation of the mass stranding event has been conducted by Scottish Rural University College (Inverness) and a full report of the investigation will be published at a later date.	Three white beaked dolphins live stranded, one was refloated and two died.	

## 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 2012, three peer-reviewed publications arose from collaborative research between the CSIP and the Centre for Environment, Fisheries and Aquaculture Science (Cefas, <http://www.cefas.defra.gov.uk/>). The first incorporated polychlorinated biphenyl (PCB) data for 25 individual chlorobiphenyl congeners (sum25CBs) (n=540), several organochlorine pesticides (n=489) and nine brominated diphenyl ether congeners (BDEs) (n=415) in UK-stranded harbour porpoises stranded between 1990 and 2008 (Law et al 2012a). Results show that concentrations of organochlorine pesticides, HBCD and BDEs were declining consistently over time. In contrast, PCB (sum25CBs) concentrations reached a plateau in 1997-8, following earlier reductions due to regulation of commercial use, and have not declined in UK harbour porpoises since. Blubber PCB concentrations are still at toxicologically significant levels in many stranded harbour porpoises and occur at even higher levels in UK-stranded bottlenose dolphins (*Tursiops truncatus*) and killer whales (*Orcinus orca*) (Law et al 2012a), mainly due to the higher trophic level in marine food chains, size and longevity, of these top predator species. Further reductions in PCB inputs into the marine environment in industrialised parts of European are urgently needed to mitigate risk from PCB exposure in these species (Law et al 2012a). Further reductions in PCB levels in UK and European waters are likely to take many decades even if PCB levels do start to decline in future. Worryingly, there are very few coastal groups of killer whales remaining in Europe outside of the Icelandic-Norwegian population, and those that do remain have stopped reproducing (source: 2012 ECS Workshop on killer whales).

The second study investigated butyltin concentrations (monobutyl, dibutyl and tributyltin (TBT)) in the liver of UK-stranded harbour porpoises (n=410) from 1992-2005 and again in 2009 following a ban on the use of tributyltin-based antifouling paints on ships (Law et al 2012b). The aim was to assess the effectiveness of the regulation, which was implemented during 2003-2008 as large ships are repainted only every five years. Since the ban was implemented, summed butyltin concentrations have declined. The percentage of animals in which TBT was detected had also fallen sharply, indicating the cessation of fresh inputs into the marine environment. In 1992, 1993 and 1995, TBT was detected in 100% of samples analysed. In 2003-2005, once the implementation of the ban had begun, this fell to 61-72%, and in 2009, following the completion of the ban, it had reduced to only 4.3% (i.e. in only 1 of 23 samples analysed). The study therefore concluded that the ban has proved effective in reducing TBT inputs to the seas from vessels.

The third peer-reviewed study found statistical associations between polychlorinated biphenyls (PCBs) exposure and involution of lymphoid tissue and development of epithelial-lined cysts in the thymus of UK-stranded harbour porpoises (n=170) (Yap et al 2012). The percentage of thymic lymphoid tissue (%TLT) was histologically quantified using standardised methodology. Multiple regression analyses (n=169) demonstrated a significant and positive correlation between %TLT and two quantitative indices of nutritional status (regression of body weight to body length and mean blubber thickness) and significant negative association between %TLT and onset of sexual maturity. However, in a subgroup of porpoises with total PCB levels (as Arochlor 1254) above a proposed threshold of toxicity (>17 mg/kg lipid weight) (n = 109), the negative

association between %TLT (as dependent variable) and summed blubber concentrations of 25 chlorobiphenyl congeners (sum25CBs) remained significant along with both indices of nutritional status and onset of sexual maturity. These results are highly consistent with PCB-induced immunosuppression in harbour porpoises in UK waters, but only at PCB concentrations that exceed proposed thresholds for toxicity in marine mammals. In contrast, development of thymic cysts appeared to be predominantly age-related change.

During 2012, Defra funded the analysis of 42 retrospective samples from UK-stranded harbour porpoises (2008-2010) for PCBs. In addition, Defra also agreed to fund further contaminant analyses under a variation to the current CSIP contract. The two small scale projects that were funded are titled "UK-stranded common dolphin contaminant analyses (supporting EU-funded Marie Curie Fellowship "CETACEAN STRESSORS")" and "Risk assessment of polychlorinated biphenyl (PCB) exposure in marine top predators". Delivery of final reports to Defra for both projects will occur in mid-2014.

> Refs

Law, R.J., Barry, J., Barber, J.L., Bersuder, P., Deaville, R., Reid, R.J., Brownlow, A., Penrose, R., Barnett, J., Loveridge, J., Smith, B. and Jepson, P.D. (2012a) Contaminants in cetaceans from UK waters: status as assessed within the Cetacean Strandings Investigation Programme from 1990 to 2008. *Marine Pollution Bulletin* 64: 1485-1494.

Law R.J., Bolam T., James D, Barry J, Deaville R, Reid RJ, Penrose R and Jepson PD. (2012b) Butyltin compounds in liver of harbour porpoises (*Phocoena phocoena*) from the UK prior to and following the ban on the use of tributyltin in antifouling paints (1992-2005 & 2009) *Marine Pollution Bulletin* 64(11): 2576-2580.

Yap, X., Deaville, R., Perkins, M.W., Penrose, R., Law, R.J., and Jepson, P.D. (2012) Investigating links between polychlorinated biphenyl (PCB) exposure and thymic involution and thymic cysts in harbour porpoises (*Phocoena phocoena*). *Marine Pollution Bulletin* 64: 2168-2176.

## 2.5 Other Forms of Disturbance

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

> The Marine Management Organisation is the enforcing body in the marine environment for wildlife legislation, and their remit includes disturbance offences. Educational training, focussing on legislation and offences, has been carried out by the MMO around the coast in areas where disturbance activities are an issue. Enforcement action for disturbance offences can be taken by police or MMO where evidence allows.

Wildlife licences are issued for certain activities which may cause disturbance to cetaceans in order to control and monitor these activities, and to minimise any disturbance these may cause so as not to be of negative impact. These licences contain conditions that must be adhered to and can be enforced by MMO.

The NGO Whale and Dolphin Conservation (WDC) undertook a review of the legal regime for cetaceans in UK waters, and the current threats they face: Green et al., 2012. Looking forward to 'strict protection': A critical review of the current legal regime for cetaceans in UK waters.

## Marine Protected Areas

### Marine Protected Areas for Small Cetaceans

#### 3.1 Relevant Information

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.

> UK Offshore SAC

Feingold, D. and Evans, P.G.H. (2012) Sea Watch Foundation Welsh Bottlenose Dolphin Photo-Identification Catalogue 2011. CCW Marine Monitoring Report No: 97: 1-262.

Nuuttila, H.K. (2012) Static Acoustic Monitoring of Cetaceans in Cardigan Bay, Wales. PhD thesis, School of Ocean Sciences, University of Bangor. 201pp.

Croker Carbonate Slabs (harbour porpoise and grey seal, non-qualifying features) and Pisces Reef Complex (harbour porpoise, grey seal, harbour seal, non-qualifying features) in the Irish Sea, and Wight-Barfleur Reef (harbour porpoise and bottlenose dolphin, non-qualifying features) in the English Channel were all submitted on 30th August 2012.

In the most recent tranche Pobie Bank Reef and Solan Bank Reef in the Scottish offshore region were submitted on 31st October 2012. Both list harbour porpoise, harbour seal and grey seal as non-qualifying features.

## Wales

Annual monitoring of cetaceans in Cardigan Bay and Pen Llyn a'r Sarnau SACs in Wales is underway (2012 was year two of a three-year contract) and contracted to Sea Watch Foundation (SWF) by Natural Resources Wales (NRW; formerly Countryside Council for Wales, CCW). Final report due 2014. Interim report available from Dr Thomas Stringell, Senior Marine Mammal Ecologist, Natural Resources Wales. [tom.stringell@naturalresourceswales.gov.uk](mailto:tom.stringell@naturalresourceswales.gov.uk)

SeaWatch Foundation continued to conduct boat-based line-transect surveys of bottlenose dolphins (and harbour porpoise) around Cardigan Bay (Wales) and Pen Llyn a'r Sarnau SAC's and Isle of Anglesey, along with photo-ID studies of the dolphins. The project provides information on the distribution, population structure and abundance of dolphins, porpoises and seals in the region. Winter surveys also took place in the Anglesey area of North Wales to which the species disperses seasonally. Acoustic monitoring has been conducted in Cardigan Bay, using T-PODs and C-PODs (subject of a PhD by H. Nuutila, based at the School of Ocean Sciences, University of Bangor obtained in early 2013).

An updated bottlenose dolphin photo-identification catalogue comprising 513 individuals spanning the years 1990 to 2011 was published on behalf of the Countryside Council for Wales (Feingold & Evans, 2012).

## > Scotland

The Marine (Scotland) Act and Marine and Coastal Access Act include new powers for Marine Protected Areas in the seas around Scotland, to recognise features of national importance and meet international commitments for developing a network of MPAs. Scottish Natural Heritage, through their Scottish MPA project, have identified priority search features (marine habitats and species) which may qualify for designation as/in MPAs. For cetaceans, both Risso's dolphin and minke whales are priority marine features that have been identified as an MPA search feature in territorial waters.

Whale and Dolphin Conservation (WDC), Hebridean Whale and Dolphin Trust (HWDT), Cetacean Research and Rescue Unit (CRRU) provided third party proposals to the Scottish MPA project and subsequent submission.

The results of site condition monitoring of the bottlenose dolphin SAC in the Moray Firth was published in the report: SNH Commissioned Report 512: Site Condition Monitoring of bottlenose dolphins within the Moray Firth Special Area of Conservation: 2008-2010. Available at: <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1893>

## 3.2 GIS Data

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

> Croker Carbonate Slabs:

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030381>

Dogger Bank: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030352>

Haisborough, Hammond and Winterton:

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

Inner Dowsing, Race Bank and North Ridge:

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

North West Rockall Bank:

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

Pisces Reef Complex:

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030379>

Pobie Bank Reef:

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030385>

Solan Bank Reef:

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030386>

Wight-Barfleur:

<http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030380>

Wyville Thomson Ridge:

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

Information on the Scottish MPA project:

[http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/marine-protected-areas-\(mpa\)/](http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/marine-protected-areas-(mpa)/)

<http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork>

Risso - <http://www.snh.gov.uk/docs/B989103.pdf>

Minke - <http://www.snh.gov.uk/docs/B988866.pdf>

Information on the WDC contribution available on request

# Surveys and Research

## 4.1 Abundance, Distribution, Population Structure

### Overview of Research on Abundance, Distribution and Population Structure

> Systematic offshore vessel-based surveys were conducted by SWF in various parts of the UK (Irish Sea, Hebrides, Grampian Region, Shetland, and Eastern England), and regular systematic land-based watches took place in locations all around the British Isles. Most effort was between April and October.

Sightings survey data collected by SWF over the last twenty years contributed to a spatio-temporal analysis of abundance trends by CREEM, University of St Andrews (Paxton et al., 2012). A second edition of an Atlas of marine mammals of the Irish Sea was published (Baines & Evans, 2012). The atlas results were subsequently modelled using sensitivity indices developed to assess vulnerabilities of different species to different types of fishing activity.

The population structure of the six major marine mammal species occurring in Welsh waters was reviewed for Countryside Council for Wales (Evans, 2012).

WDC conducted land and boat based surveys of Bardsey Island, North Wales, August-September 2012, and the of the Isle of Lewis, Scotland May 2012 and August-October 2012.

> -Baines, M.E. and Evans, P.G.H. (2009) Atlas of the Marine Mammals of Wales. CCW Monitoring Report No.68. 82pp.

-Baines, M.E. and Evans, P.G.H. (2012) Atlas of the Marine Mammals of Wales. 2nd Edition. CCW Monitoring Report No. 68. 143pp.

-Evans, P.G.H. (2012) Recommended Management Units for Marine Mammals in Welsh Waters. CCW Policy Research Report No. 12/1. 69pp.

-Paxton, C.G.M., Scott-Hayward, L., Mackenzie, M., Rexstad, E., and Thomas, L. (2012) Revised Phase III Data Analysis of Joint Cetacean Protocol Data Resource. Report to Joint Nature Conservation Committee. Centre for Research into Ecological and Environmental Modelling, University of St. Andrews. 175pp.

## 4.3 Other Relevant Research

> Research on occurrence, distribution, site fidelity, habitat use and behaviour of small cetaceans, with particular emphasis on Risso's dolphin, around Bardsey Island, North Wales. Einfeld, SM and Lott, R. 2013. Risso's dolphins in North Wales. CCW Contract Science Report No. 1021. 26pp.

A review of climate change impacts upon marine mammals in UK and adjacent waters was conducted by Evans & Bjørge (2013). Evans, P.G.H. and Bjørge, A. (2013) Impacts of climate change on marine mammals. Marine Climate Change Impacts Partnership (MCCIP) Annual Report Card 2011-2012 Scientific Review: 1-34.

There is a significant amount of research being carried out through Marine Scotland and SNH looking at likely impacts from marine renewable energy projects

<http://www.scotland.gov.uk/Topics/marine/marineenergy/Research>

### > Joint Cetacean Protocol (JCP)

The Joint Cetacean Protocol (JCP) was first introduced at the 2007 AC meeting and welcomed again in 2009 as part of improvements in approach to assessments. The JCP aims to deliver information on the distribution, abundance and population trends of cetacean species occurring in NW European waters. It was intended that the project outputs would assist governmental reporting to various Directives (e.g. the Habitats Directive and the Marine Strategy Framework Directive) and would also improve the robustness of marine Environmental Impact Assessments. The JCP brings together effort-related cetacean sightings data from a variety of sources including large scale international surveys such as SCANS & SCANS-II and CODA, surveys based on platforms of opportunity such as ICES International Bottom Trawl Surveys (European Seabirds at Sea (ESAS) cetacean data), as well as more localised non-governmental data (e.g. SeaWatch Foundation and ARC) and industry data (e.g. that collected in relation to potential renewable energy installations). These data, collected between 1979 and 2010, represent the largest NW European cetacean sightings resource ever collated and have been standardised to a common format, checked and cleaned. It should be noted that the JCP is heavily dominated by UK lead survey work. Other sources should be encouraged to join JCP in the future, notably from waters other than UK, similarly collected from dedicated surveys or platforms of opportunity.

There have been three major phases of JCP analyses (<http://jncc.defra.gov.uk/page-5657>).

-For harbour porpoises, bottlenose dolphins and common dolphins in the Irish Sea (Phase I), Paxton &

Thomas (2010) reported that 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 period. For other species and earlier time periods, only very large changes in modelled population density would be detectable. However, the modelled population densities rely on spatial and temporal smoothing, and hence sudden declines would not necessarily be detectable.

The models developed were further refined and expanded to include the Scottish west coast (Phase II, Paxton et al, 2011). Density surfaces varying in time were generated for harbour porpoise, minke whale, bottlenose dolphin, short-beaked common dolphin and white-beaked dolphins; with a non-temporal model used for Risso's dolphin. The density surfaces proved complex to model and some bootstrap confidence intervals were very wide especially in areas of low effort and associated with high predictions.

Phase III of the JCP was recently completed and models were developed to cover the European Atlantic area for seven species. The Phase III analysis produced species specific density surfaces over the whole JCP area and main period of data collection. However, the estimated densities were higher than those previously published in stand-alone analyses of the larger (SCANS-II and CODA) surveys whose data were included in the JCP analysis. In some cases, these differences were substantial and suggested to be implausible, particularly for species that tend to occur in large aggregations. The JCP Steering Group, therefore, asked that the analysis be re-run to address the issues. The draft report from this reanalysis was submitted October 2012 and underwent an international peer review in early 2013. The final version (Paxton et al., 2013) was submitted in July 2013. There are a number of decisions to be made in regard to the JCP Phase III outputs and its publication. The issues have been discussed by the UK's Inter-Agency Marine Mammal Working Group and are now to be considered by the JCP Steering Group/Chief Scientist Group. Updates will be posted on/through the Joint Cetacean Protocol webpage in due course: <http://jncc.defra.gov.uk/page-5657>

-Paxton, C. & Thomas, L., 2010. Phase One Data Analysis of Joint Cetacean Protocol Data. Available at: [http://jncc.defra.gov.uk/pdf/JCP\\_Phase\\_1\\_Analysis.pdf](http://jncc.defra.gov.uk/pdf/JCP_Phase_1_Analysis.pdf)

-Paxton, C.G.M., M. Mackenzie, M.L Burt, E. Rexstad & L. Thomas. 2011. Phase II Data Analysis of Joint Cetacean Protocol Data Resource. Draft Report to Joint Nature Conservation Committee. Contract number C11-0207-0421. Available at:[http://jncc.defra.gov.uk/pdf/JCP\\_Phase\\_II\\_report.pdf](http://jncc.defra.gov.uk/pdf/JCP_Phase_II_report.pdf)

-Paxton, C.G.M., Scott-Hayward, L., Mackenzie, M., Rexstad, E. & Thomas, L. 2013. Revised Phase III Data Analysis of Joint Cetacean Protocol Data Resource. Final report to The Joint Nature Conservation Committee. Contract number C11-0207-0421 (unpublished).

The JNCC has contracted a further analysis of data to look for persistent, high density areas in UK waters for harbour porpoise and bottlenose dolphins. The Final report for this work is due early 2014.

# Use of Bycatches and Strandings

## Post-Mortem Research Schemes

### 5.1 Contact Details

Contact details of research institutions and 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

www.ukstrandings.org

> Natural Resources Wales - Dr Thomas Stringell, Senior Marine Mammal Ecologist

tom.stringell@naturalresourceswales.gov.uk

### 5.2 Methodology

Methodology used (reference, e.g. publication, protocol)

> Methodology in Deaville and Jepson et al (2011) followed;

Deaville and Jepson (compilers) (2011) CSIP Final Report for the period 1st January 2005-31st December 2010.

Pp 1-98

[http://randd.defra.gov.uk/Document.aspx?Document=FinalCSIPReport2005-2010\\_finalversion061211released\[1\].pdf](http://randd.defra.gov.uk/Document.aspx?Document=FinalCSIPReport2005-2010_finalversion061211released[1].pdf)

### 5.3 Samples

Collection of samples (type, preservation method)

> A range of samples are routinely collected according to the method of Deaville and Jepson et al (2011). 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;

- Stored frozen at -20°C or -80°C;
- Stored in 70% ethanol (parasites);
- In 10% buffered formalin (fixed samples)

In addition to the strandings co-coordinators funded by Defra, the Welsh Assembly Government continues its funding of the Welsh Strandings Co-ordinator in conjunction with NRW. The cetacean most commonly found stranded on the Welsh coast is the harbour porpoise and the most common cause of death for this species is from attack by bottlenose dolphins.

### 5.4 Database

Database (number of data sets by species, years covered, software used, online access)

> The CSIP holds data on nearly 11000 cetaceans which were reported stranded around the UK between 1990 and 2012. In addition, detailed pathological data is also held on over 3200 UK stranded cetaceans which were necropsied by 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 ([www.nbn.org.uk/](http://www.nbn.org.uk/)).

### 5.5 Additional Information

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](http://www.ukstrandings.org). Intellectual property rights to the data directly generated as a result of CSIP research belong to Defra.

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 (Project ref: SSFA/ASCOBANS/2010/2). The project report on this

feasibility study has been recently submitted to the Secretariat and it is hoped that this will be the first step towards the eventual creation of a central database on strandings and necropsies, encompassing ASCOBANS Parties and Range states.

## Activities and Results

### 5.6 Necropsies

Number of necropsies carried out in the reporting period

	Number	Recorded cause of death
Phocoena phocoena		
Tursiops truncatus		
Delphinus delphis		
Stenella coeruleoalba		
Grampus griseus		
Globicephala melas		
Globicephala macrorhynchus		
Lagenorhynchus albirostris		
Lagenorhynchus acutus		
Orcinus orca		
Hyperoodon ampullatus		
Mesoplodon bidens		
Kogia breviceps		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		

You have attached the following documents to this answer.

[UK Cetacean Necropsies 2012.doc](#) - UK Cetacean Necropsies 2012

### 5.7 Other Relevant Information

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

>

Further information can be found on the CSIP website: [www.ukstrandings.org](http://www.ukstrandings.org)

## Relevant New Legislation, Regulations and Guidelines

### 6.1 New Legislation, Regulations and Guidelines

Please provide any relevant information

> The Marine Management Organisation (MMO) uses an intelligence led risk based enforcement model to direct enforcement activities and resources. Any intelligence received by the MMO in relation to offences against cetaceans or anthropogenic impacts in MPAs designated for them is considered and appropriate enforcement action taken.

In June 2013 the MMO circulated guidance to industry on the European Council Regulation EC 812/2004 (laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98) See:

[http://www.marinemanagement.org.uk/fisheries/monitoring/regulations\\_cetaceans.htm](http://www.marinemanagement.org.uk/fisheries/monitoring/regulations_cetaceans.htm)

<http://www.marinemanagement.org.uk/fisheries/monitoring/documents/cetaceansinfopack.pdf>

# Public Awareness 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.

> During the 7th Meeting of Parties of ASCOBANS in Brighton over 22nd-24th October and Whalefest over 25th-28th October ([www.whale-fest.com/](http://www.whale-fest.com/)), the CSIP in conjunction with colleagues from Whale and Dolphin Conservation, ran a Defra/ASCOBANS funded exhibition on cetaceans found in UK waters, at the main Brighton children's library and then subsequently at Whalefest. The exhibition featured skeletal material and other specimens collected by the CSIP, along with banners and artwork co-funded by the CSIP and WDC.

The eleventh annual National Whale & Dolphin Watch week was organised by Sea Watch Foundation between 27 July and 5 August. 107 watches were conducted around the British Isles from Shetland to the Isle of Scilly and Channel Islands. More than 500 persons participated directly in the event with 435 hours of observation effort, resulting in 533 sightings involving ten cetacean species (in descending order of frequency: harbour porpoise, bottlenose dolphin, minke whale, short-beaked common dolphin, Risso's dolphin, white-beaked dolphin, Atlantic white-sided dolphin, killer whale, humpback whale, and long-finned pilot whale). The event received widespread regional and national media coverage. A full report was published (Gibas, 2012).

Sea Watch continued to run a Dolphin Adoption scheme aimed particularly at children, to encourage them to take on individual responsibility for safeguarding photo-identified dolphins and to follow their fortunes.

Other educational and public awareness programmes were undertaken throughout the UK, with displays, lectures and training courses. Sea Watch also participated in the World Whale Conference held in Brighton on 25-26 October, with talks, species ID demonstrations and exhibits.

> Refs: Gibas, D. (2012) National Whale and Dolphin Watch 2012 Report. Sea Watch Foundation, New Quay. 15pp.

Evans, P. /SeaWatch Foundation kindly provided a number of additional references to papers and publications for the preparation of this report, further details of these can be found at: [www.seawatchfoundation.org.uk](http://www.seawatchfoundation.org.uk)

## **Possible difficulties encountered in implementing the Agreement**

Difficulties in Implementing the Agreement

Please provide any relevant information

> None