

Agenda Item 12.1

National Reporting

Reports from Parties

Information Document 12.1.j
Rev.2

2013 Annual National Report
United Kingdom

Action Requested

- Take note

Submitted by

United Kingdom



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

2013 ASCOBANS Annual National Reports

Pre-filled with answers given in 2012 National Report - please update!

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

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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

- > Department for Environment, Food, and Rural Affairs (Defra). Contact: Emma Rundall (Emma.Rundall@defra.gsi.gov.uk)
- > Joint Nature Conservation Committee (JNCC). Contact: Eunice Pinn eunice.pinn@jncc.gov.uk (<http://jncc.defra.gov.uk/>)
- > Centre for Environment, Fisheries and Aquaculture Science (Cefas). Contact: beatriz.roel@cefas.co.uk (<http://www.cefas.defra.gov.uk/>)
- > Marine Management Organisation (MMO). Contact: Claire Bowers claire.bowers@marinemangement.org.uk (<https://www.gov.uk/government/organisations/marine-management-organisation>)
- > Natural England - <http://www.naturalengland.org.uk/> Contact: enquiries@naturalengland.org.uk
- > Natural Resources Wales - <http://naturalresourceswales.gov.uk> Contact: tom.stringell@naturalresourceswales.gov.uk
- > UK Cetacean Strandings Investigation Programme (CSIP). Contact: Rob Deaville (Institute of Zoology) rob.deaville@ioz.ac.uk (<http://ukstrandings.org/>)
- > Sea Mammal Research Unit (SMRU). Contact: Simon Northridge spn1@st-andrews.ac.uk (<http://www.smru.st-andrews.ac.uk/>)
- > Whale and Dolphin Conservation (WDC), Contact: Ali Wood ali.wood@whales.org

> Sea Watch Foundation (SWF). Contact: Dr Peter G.H. Evans peter.evans@bangor.ac.uk. Ewyn y Don, Bull Bay, Amlwch, Isle of Anglesey LL68 9SD

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 [<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:150:0012:0031:EN:PDF>], and under Article 12(4) of the Habitats Directive, provide details of the monitoring work undertaken in the UK and estimates of cetacean bycatch. The most recent reports on cetacean bycatch in UK waters submitted to the European Commission under the requirements of EC Regulation 812/2004 can be found on the Department for Environment Food and Rural Affairs (Defra) website [<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535>].

A dedicated cetacean bycatch monitoring programme is in place and operated by the Sea Mammal Research Unit (SMRU). Fisheries research laboratories operating fisheries observer programmes in the UK also provide data which are included in our assessment of cetacean bycatch. Whilst the UK observer scheme relies upon good collaborative links with industry, fisheries regulations have been enacted in England and Scotland to ensure that there is also a legal obligation for skippers and owners to allow observers on board 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 carried out since the late 1990s. Monitoring activities are focussed on these areas and as sufficient data are compiled, more robust estimates of current bycatch rates will become available.

The latest UK cetacean by-catch report for 2013 as required under EU Regulation 812/2004 suggests an increase in estimated porpoise by-catch. However, this is not primarily due to an increase in direct observations, but rather the result of the inclusion of new data this year. This estimated increase brings with it a number of uncertainties which the authors note have likely led to an over-estimate of porpoise bycatch. This is therefore considered as a precautionary maximum with actual numbers likely to be much lower (full details of estimates of bycatch are given in Annex 1 of the report). However, the UK remains committed to bringing cetacean by-catch down and further work is being done to reduce uncertainties in bycatch estimates.

In 2013, actual observer days covered 22 trips (101 days) on pelagic trawlers and 166 trips (346 days) on static gear vessels. In pelagic gears, over time, monitoring has reduced in major trawls for herring and mackerel because observations indicate bycatch is low. Instead, observer effort has switched to smaller pelagic fisheries which have not been routinely sampled in the past. Monitoring continues at a relatively high level in the bass pair trawl fishery which has a known dolphin bycatch issue but where pinger use appears to be effective. In static gear fisheries, roughly 82% of sampling took place in the south and west of the UK (Subarea VII), and around 18% in the North Sea (IV), again where there have been known bycatch issues.

Among the static gears sampled, 25 days were categorized as drift nets and 321 as fixed nets.

In simple terms, bycatch estimates are calculated on the basis of the number of animals observed caught per fishing operation (haul), scaled up to fleet level by estimating actual fishing effort (number of hauls) and applied to the reported number of days at sea by fishery stratum. The most recent figures for 2013 estimate levels of porpoise by-catch by the UK fleet in UK waters to be between 1600-1900 individuals per year (18 actual observed porpoise bycatch incidents). This is significantly higher than in previous years where levels had been estimated at c800 individuals per year. However, bycatch estimates for other species have remained consistent with previous years; c320 common dolphins and c470 seals.

There are several reasons for this estimated increase in harbour porpoise bycatch. Firstly, all UK gillnet fisheries have now been included in the assessment, whereas in previous years estimates were only included for those fisheries where sufficient sampling had been undertaken. Extrapolation of observed bycatch rates to all peripheral areas and the assumptions made relating to fishing effort introduces a greater degree of uncertainty into the 2013 estimates. It is also likely that bycatch has been overestimated in some areas, notably ICES area VIId where observed bycatch rates remain lower than other Area VII sub-areas.

Secondly, porpoise bycatch rates may have actually increased in some areas over the past decade – although the trend is difficult to quantify at this time.

Thirdly, by-catches have been observed in some fisheries (e.g. drift nets and light gillnets for flatfish such as sole) that were not previously seen due to a lower sampling frequency. These métiers were excluded from previous estimates.

> Efforts to reduce bycatch

During 2013, investigations on methods to reduce bycatch have focussed on the continued monitoring and testing of acoustic deterrent devices (ADDs), or ‘pingers’. The SMRU has continued to monitor the bycatch of common dolphins in the bass pair trawl fishery, which is using DDD pingers on a voluntary basis. Bycatch rates in this fishery continue to remain at very low levels compared with historic rates prior to the adoption of pingers. The SMRU has also continued to monitor the use of DDDs in the offshore gillnet fleet that operates in the South West of England in order maintain an overview of longer term effects of pingers on cetacean bycatch rates and seal depredation levels in these fisheries. A new pinger model (Fishtek ‘banana pinger’) was

also tested by the Cornwall Wildlife Trust in conjunction with Fishtek and local fishermen from the inshore fleet during 2013. The results of this on-going work can be found at http://www.cornwallwildlifetrust.org.uk/livingseas/dolphin_pinger_trial

A number of research projects have been carried out by the Scottish Government, including a recent project that concluded at the end of 2013 entitled 'Evaluating and assessing the relative effectiveness of non-lethal measures, including Acoustic Deterrent Devices (ADDs), on marine mammals'. The aim of this project was to carry out a comprehensive literature and data review on the capabilities of current and developing non-lethal measures for deterring marine mammals. This should help answer questions on design, effectiveness, best practice and impacts of these devices on marine mammals. The final report will be available later in 2014 however further details on this and other cetacean bycatch avoidance research undertaken by the Scottish Government can be found at <http://www.scotland.gov.uk/Topics/marine/marine-environment/species/19887/20826>.

1.2 Implementation of methods to reduce bycatch

> The UK continues to fully implement and enforce Council Regulation (EC) 812/2004 through the use of acoustic deterrent devices attached to fishing nets. Implementation of the regulation in the UK has involved close liaison with the industry and ongoing monitoring and support to aid compliance. This has been led primarily by the MMO. Enforcement of the regulation at sea (via pinger detection units) and at the quayside is carried out by MMO officers, the Marine Scotland Compliance and Enforcement Unit, and the Royal Navy, and has included inspections on vessels from other member states. Further information can be found at http://www.marinemanagement.org.uk/fisheries/monitoring/regulations_cetaceans.htm

1.3 Other relevant information

Other relevant information, including bycatch information from opportunistic sources

> Additional information on potential incidents of bycatch is also provided through necropsies carried out under the UK Cetacean Strandings Investigation Programme (CSIP).

1.4 Report under EC Regulation 812/2004

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

>
<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535>

Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

> Most marine construction or development activities generating noise (i.e. piling) require the developer to apply for consent and carry out the necessary assessments e.g. Environmental Impact Assessments (EIA), Appropriate Assessments (AA) under the Habitats Directive. The Marine Management Organisation (MMO) is responsible for most marine licensing in UK offshore waters and inshore English waters. In Scottish inshore waters Marine Scotland are the licencing body, in Welsh inshore waters it is Natural Resources Wales, and in Northern Ireland inshore waters it is the Department of Environment Northern Ireland (DOENI) .
[<https://www.gov.uk/how-marine-licensing-works>]

Noise mitigation measures may be required where there is a risk that the activity may disturb or harm cetaceans, including the need for Marine Mammal Observers, soft start piling, and cessation of piling activity when cetaceans are present. As disturbance of cetaceans cannot be eliminated entirely as part of these projects, this mitigation is designed to reduce it to acceptable levels considered to not be detrimental to maintaining their conservation status. Relevant guidance can be found on the UK government website.
[<https://www.gov.uk/oil-and-gas-offshore-environmental-legislation>]

The MMO also has a voluntary notification system for seismic surveys occurring in English waters, so that we have a record of these activities taking place and can make assessment of any disturbance this may cause and suggest implementation of mitigation measures as appropriate

[<http://www.marinemanagement.org.uk/protecting/wildlife/geophysical.htm>].

The UK is also required to meet obligations on impulsive sounds and ambient noise under the Marine Strategy Framework Directive (MSFD). The UK published the first part of its Marine Strategy as required under the Directive in December 2012. This contains the characterisation of Good Environmental Status (GES) and associated targets and indicators in UK waters. Part two of the UK Marine Strategy outlining UK monitoring programmes was published in July 2014. The final part of the UK marine Strategy, programmes of measures necessary to achieve GES, will be consulted on during early 2015. Further information on implementation of the MSF in the UK can be found on the UK government website

[<https://www.gov.uk/government/policies/protecting-and-sustainably-using-the-marine-environment/supporting-pages/implementing-the-marine-strategy-framework-directive>]. Further information on the implementation of the MSFD in Europe can be found on the European Commission website [http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/implementation/reports_en.htm].

To meet our obligations under the MSFD for marine noise the UK has been developing a noise registry which will capture and store records of impulsive sounds in the UK marine environment. This will aid regulators and industry in providing a clear picture of the distribution in space and time of noise generating activities and help the UK to assess whether it is delivering GES.

The UK also continues to actively engage more widely on noise issues within Europe. The UK is currently Vice Chair of OSPAR (Oslo and Paris Conventions for the protection of the marine environment of the North-East Atlantic) and within this Convention is the Chair of the Biodiversity Committee (BDC) which considers cetaceans more generally. The UK also plays an active role in the ICG-MSFD which helps improve regional MSFD coordination and in the EIHA (Environmental Impacts of Human Activities) Committee which considers the impacts of marine noise and is currently developing guidance for Contracting Parties on options for noise mitigation measures.

The UK also co-chairs the EU Technical Sub Group on underwater noise (EU TSG-Noise) with the Netherlands. This group continues to provide advice to Member States on implementing the noise aspects of the MSFD. The UK Underwater Sound Stakeholder continue to meet twice per year, providing an opportunity for industry, non-government organizations and other interested stakeholders to engage directly with Defra and Ministry of Defence (MoD) to discuss emerging issues and exchange information on the impacts of noise in the marine environment. These discussions have helped drive the development of a real-time alert procedure for naval training operations, enabling 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.

The National Physical Laboratories, on behalf of the UK, continues to lead in the development of underwater noise standards via the British Standards Institute Committee. Engagement in the International Standards Organisation [ISO] Sub-Committee within ISO TC43 (SC3 title: "Underwater Acoustics") continues to be considered a priority. This ISO TC43 sub group will cover "Standardization in the field of underwater acoustics (including natural, biological, and anthropogenic sound), including methods of measurement and assessment of the generation, propagation and reception of underwater sound and its reflection and scattering in the underwater environment including the seabed, sea surface and biological organisms, and also including all aspects of the effects of underwater sound on the underwater environment, humans and marine aquatic life."

Other relevant work carried out during 2013 includes:

- New guidance on marine European Protected Species has been published in Scotland: The Protection of Marine European Protected Species from Injury and Disturbance. Guidance for Scottish Inshore Waters. <http://www.scotland.gov.uk/Topics/marine/marine-environment/species/19887/20813/epsguidance?refresh=0.6352101364748239>
- A Protocol for Implementing the Interim Population Consequences of Disturbance (PCoD) Approach: Quantifying and Assessing the Effects of UK Offshore Renewable Energy Developments on Marine Mammal Populations. J Harwood, S King, R Schick, C Donovan and C Booth. 2014. Marine and Freshwater Science Vol 5 No 2, Published by Marine Scotland Science. ISSN: 2043-7722. <http://www.scotland.gov.uk/Resource/0044/00443360.pdf>
- Use of Deterrent Devices and Improvements to Standard Mitigation during Piling. Research Summary. Offshore Renewables Joint Industry Programme (ORJIP). <http://www.carbontrust.com/media/416650/orjip-project-4-phase-1-summary-report.pdf>
- Assessing the Potential Impact of Oil and Gas Exploration Operations on Cetaceans in the Moray Firth. Paul Thompson, Kate Brookes, Line Cordes, Tim Barton, Barbara Cheney & Isla Graham. 2013. University of Aberdeen. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/261936/Moray_Firth_Final_Report_-_November_2013.pdf
- Short-term disturbance by a commercial two-dimensional seismic survey does not lead to long-term displacement of harbour porpoises. Thompson PM, Brookes KL, Graham IM, Barton TR, Needham K, Bradbury G, Merchant ND. 2013. Proc R Soc B 280: 20132001. <http://dx.doi.org/10.1098/rspb.2013.2001>
- What caused the UK's largest common dolphin (*Delphinus delphis*) mass stranding event? Jepson P.D., Deaville R., Acevedo-Whitehouse K., Barnett, J., Brownlow A., Brownell Jr, R.L., Clare F.C., Davison N.C., Law R.J., Loveridge J., Macgregor S.K., Morris S., Murphy S., Penrose R., Perkins M.W., Pinn E., Seibel, H., Siebert, U., Sierra E., Simpson V., Tasker M.L., Tregenza N., Cunningham A.A. and Fernández A. 2013. PLoS ONE 8(4): e60953. doi:10.1371/journal.pone.0060953.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060953>

- Marine Renewable Energy: A Global Review of the Extent of Marine Renewable Energy Developments, the Developing Technologies and Possible Conservation Implications for Cetaceans. 2013. Whale and Dolphin Conservation (WDC). <http://uk.whales.org/sites/default/files/wdc-marine-renewable-energy-report.pdf>
- A JNCC contract will report in Autumn 2014 on the potential effects of seismic surveys on cetaceans. The report will analyse data from Marine Mammal Observer reports, submitted as part of the consenting regime for any seismic surveys within the United Kingdom Continental Shelf (UKCS), analysing data from 1994- 2010. The work will build on earlier analysis of Marine Mammal Observer reports (e.g. Stone and Tasker, 2006), but will allow for longer term analysis of potential effects of seismic activities on cetaceans, as well as general trends in the implementation of the JNCC seismic guidelines (http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Seismic%20Guidelines_August%202010.pdf) throughout this time period.

2.2 Ship Strike Incidents

Please list all known incidents and provide information separately for each

	Incident 1	Incident 2	Incident 3	Incident 4	Incident 5
Date	20/07/13	20/02/13	24/05/13	13/06/13	21/07/13
Species	Bottlenose dolphin	Short-beaked common dolphin	Harbour porpoise	Sowerby's beaked whale	Harbour porpoise
Type of Injury	Unknown- carcass couldn't be retrieved for necropsy	Linear incision caudal peduncle; rib fractures and associated trauma	Dorsal thoracic haemorrhage	Multiple fractures and associated haemorrhage to upper and lower jaws	Dorsal thoracic haemorrhage and rib fractures
Fatal Injury (Yes/No)	Yes	Yes	Yes	Yes	Yes
Type of Vessel (length, tonnage, speed)	Unknown	Unknown- stranded animal, diagnosed at necropsy	Unknown- stranded animal, diagnosed at necropsy	Unknown- stranded animal, diagnosed at necropsy	Unknown- stranded animal, diagnosed at necropsy
Location (coordinates)	Camel estuary, Cornwall, England	Paignton, Torbay, England	River Thames, London, England	Dromane harbour, Highland, Scotland	Trevose head, Cornwall, England
More Information (name, email)	Rob Deaville (rob.deaville@ioz.ac.uk)	Rob Deaville (rob.deaville@ioz.ac.uk)	Rob Deaville (rob.deaville@ioz.ac.uk)	Rob Deaville (rob.deaville@ioz.ac.uk)	Rob Deaville (rob.deaville@ioz.ac.uk)

You have attached the following documents to this answer.

[Additional ship strike cases - UK.doc](#) - Additional ship strike cases (attached due to lack of space in online reporting form)

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	03/03/13	24/04/13	12/09/13		
Location	Winterton on Sea, Norfolk, England	Portmahomack, Highland, Scotland	St. Kilda, Western Isles, Scotland		
Type of Incident	Multiple stranding	Mass stranding	Mass stranding		

Further Information	Four freshly dead harbour porpoises exhibiting similar traumatic lesions were found dead stranded in close proximity. Post-mortem examination of the only retrievable carcass indicated atypical physical trauma as a probable diagnosis (whether this was as a result of ship strike or grey seal attack/scavenging remains unclear).	Mass stranding of three long-finned pilot whales. Two died and one refloated.	Two Sowerby's beaked whales live stranded- the larger animal died and the smaller one was refloated (possibly a mother-calf pair).	Further information on the above incidents will be given in the CSIP 2013 annual report to Defra and the Devolved Administrations in the UK, which will be shortly published at;	http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17835&FromSearch=Y&Publisher=1&SearchText=strandings&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description
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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.

> Work has continued since the initial UK work undertaken during 2011 to analyse 100 retrospective samples from UK-stranded harbour porpoises (2004-2008) for polychlorinated biphenyls (PCBs) at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS). This initial work combined new data with older data from 1990-2008 in order to provide a near 20-year time series of data for polychlorinated biphenyls (PCBs) (n=540), organochlorine pesticides (OC) (n=489) and brominated diphenyl ethers (BDEs) (n=415) in UK-stranded harbour porpoises.

During 2013 CEFAS, in collaboration with the UK Cetacean Strandings Investigation Programme (CSIP), finalised analyses on a further 102 cetaceans for levels of PCB's. Samples were derived from both stranded and biopsied animals across Europe and comprised harbour porpoises (n=43), bottlenose dolphins (n=41) and killer whales (n=18). The funding for these analyses was provided by Defra under a project entitled "Risk assessment of polychlorinated biphenyl (PCB) exposure in marine top predators". The results of this work, and the previous analyses carried out (including those funded under a small ASCOBANS project in 2010, reference SSFA2010-3), are now being compiled by the Institute of Zoology in a paper describing levels of PCB's in over 1000 cetaceans sampled across Europe between 1990 and 2012. This paper will be published during 2014 and will be included in the next UK national report.

The results show that concentrations of organochlorine pesticides, HBCD and BDEs are declining. In contrast, PCB concentrations have reached a plateau since 1997 following earlier reductions due to regulation of commercial use. Further reductions in PCB levels in UK waters are likely to take decades. Blubber PCB concentrations are still at toxicologically significant levels in many stranded harbour porpoises (Jepson et al 2005) and occur at even higher levels in UK-stranded bottlenose dolphins and killer whales (ICES 2010), mainly due to their higher trophic level in marine food chains in these top predator species. Further reductions in PCB inputs into the marine environment are undoubtedly needed to mitigate risk from PCB exposure in these species (ICES 2010, Law et al submitted).

In addition, during 2013, publications were produced on levels of organochlorine pesticides and chlorobiphenyls in bycaught common dolphins (Law et al. 2013a) and also on levels of alternative flame retardants in stranded harbour porpoises (Law et al. 2013b), as a result of the ongoing collaboration between CEFAS and the UK strandings programme.

- Organochlorine pesticides and chlorobiphenyls in the blubber of bycaught female common dolphins from England and Wales. Law RJ; Bersuder P; Barry J; Barber J; Deaville R; Barnett J; Jepson PD. 2013. Marine Pollution Bulletin 69: 238-242.
- Alternative flame retardants, Dechlorane Plus and BDEs in the blubber of harbour porpoises (*Phocoena phocoena*) stranded or bycaught in the UK during 2008. 2013. Law, R.J., Losada, S., Barber, J.L., Bersuder, P., Deaville, R., Brownlow, A., Penrose, R. and Jepson, P.D. Envi. Int. 60 81-88.

2.5 Other Forms of Disturbance

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

> The Marine Management Organisation (MMO) 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. Separate but similar provisions are in place in Scotland and administered by Marine Scotland.

As a wildlife licensing authority, the MMO makes assessments on wildlife licence applications to ensure that any activity permitted under a licence is not detrimental to the Favourable Conservation Status of the population of a species, and that there are no other suitable alternatives. Any wildlife licences issued to allow the disturbance of cetaceans will seek to minimise this disturbance through conditions placed on the licence. For example a wildlife licence issued for scientific purposes will limit the number of interactions with a local populations and require appropriate vessel manoeuvring during activity undertaken under licence and requires end of licence reports to be submitted on activity undertaken.

The MMO is part of the Cornwall Marine Wildlife Group which has established a disturbance register so incidents in the South West of England can be reported and recorded as well as being forwarded to the relevant enforcement authorities as necessary (the Police and MMO). A coastal code of conduct to reduce disturbance of marine species has also been created.

http://www.cornwallwildlifetrust.org.uk/livingseas/cornwall_marine_and_coastal_code

Disturbance of cetaceans and an incident resulting in the death of a calf have been associated with some inappropriate vessel activities in the South West of England. The MMO swiftly responded to this problem and has since provided follow up action by creating additional educational material.

<http://www.marinemanagement.org.uk/news/news/130722.htm>

The MMO also chairs the Partnership for Action Against Wildlife Crime (PAW) Marine Wildlife Working Group, which seeks to coordinate the enforcement of marine wildlife crime, including disturbance offences, under the relevant wildlife legislation. This group includes enforcement authorities and NGOs.

<http://www.marinemanagement.org.uk/protecting/wildlife/paw.htm>

> There is growing evidence that bottlenose dolphins may be affected by recreational activities within Cardigan Bay, West Wales, including within Cardigan Bay SAC. Abundance (from line transect surveys) within the SAC has declined since 2006 but it remains difficult to attribute a decline to any one cause; an inverse relationship between vessel numbers and dolphin encounter rates has been suggested; and in areas with high vessel traffic, social structure appears to be disrupted and whistle characteristics altered (Pierpoint et al., 2009; Veneruso & Evans, 2012a; Richardson, 2012; Thompson, 2012; Feingold & Evans, 2013).

> Feingold, D. and Evans, P.G.H. (2014) Bottlenose Dolphin and Harbour Porpoise Monitoring in Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation 2011-2013. Natural Resources Wales Evidence Report Series No. 4. 124pp

Pierpoint, C., Allan, L., Arnold, H., Evans, P., Perry, S., Wilberforce, L., and Baxter, J. (2009) Monitoring important coastal sites for bottlenose dolphin in Cardigan Bay, UK. Journal of the Marine Biological Association of the UK, 89: 1033-1043.

Richardson, H. (2012) The effect of boat disturbance on the bottlenose dolphin (*Tursiops truncatus*) of Cardigan Bay in Wales. MSc thesis, University College London. 71pp.

Thompson, K. (2012) Variations in Whistle Characteristics of Bottlenose Dolphins (*Tursiops truncatus*) in Cardigan Bay, Wales. MSc thesis, University of Bangor. 62pp.

Veneruso G. and Evans P.G.H. (2012) Bottlenose dolphin and harbour porpoise monitoring in Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation. CCW Monitoring Report No. 95: 1-65.

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.

> The following MPAs in place in the UK specifically name cetaceans as either a qualifying or non-qualifying features.

- Cardigan Bay/Bae Ceredigion SAC with bottlenose dolphin considered as a qualifying feature.
- Moray Firth SAC with bottlenose dolphin considered as a qualifying feature.
- Skerries and Causeway SAC with harbour porpoise considered as a qualifying feature.
- Pen Llyn a'r Sarnau/ Lleyn Peninsula and the Sarnau SAC with bottlenose dolphin considered a qualifying feature, but not a primary reason for site selection.
- The UK section of Dogger Bank SAC in the North Sea with harbour porpoise, harbour seal and grey seal considered as non-qualifying features (Grade D).
- Croker Carbonate Slabs SAC in the Irish Sea with harbour porpoise and grey seal considered as non-qualifying features.
- Pisces Reef Complex SAC in the Irish Sea with harbour porpoise, grey seal, and harbour seal considered as non-qualifying features.
- Wight-Barfleur Reef SAC in the English Channel with harbour porpoise and bottlenose dolphin considered as

non-qualifying features.

- Pobie Bank Reef and Solan Bank Reef in the Scottish offshore region with harbour porpoise, harbour seal and grey seal considered as non-qualifying features.

Other protected areas such as Special Area of Conservation (SACs) and Marine Conservation Zones (MCZs) in place for other features in the UK (and the management measures associated with them) will also indirectly contribute to the conservation of cetaceans in UK waters.

Recent work

- During 2013 work has been on-going by the Joint Nature Conservation Committee (JNCC) to analyse the most up-to-date and extensive dataset on harbour porpoise with the aim of determining whether any further areas suitable for designation as a SAC are present in UK waters. This work will continue throughout 2014.
 - The Marine (Scotland) Act and Marine and Coastal Access Act includes new powers for Nature Conservation 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 and the Joint Nature Conservation Committee, as part of the Marine Scotland-led Scottish MPA Project, have identified MPA search features (marine habitats and species) to guide the selection of Nature Conservation MPAs. Within Scottish territorial waters three species of cetaceans, Risso's dolphin, white-beaked dolphin and minke whale have been identified as MPA search features. Work is ongoing to review three MPA search locations for these species and SNH intends to provide advice to Scottish Government in 2014 on whether or not they should be considered for designation. Further information on this project can be found at [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)/) and <http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork>
 - The results of site condition monitoring of the bottlenose dolphin SAC in the Moray Firth was published in 2012: SNH Commissioned Report 512: Site Condition Monitoring of bottlenose dolphins within the Moray Firth Special Area of Conservation: 2008-2010. <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1893>
 - Natural Resources Wales commissioned the monitoring of bottlenose dolphin and harbour porpoise in Cardigan Bay and Pen Llŷn a'r Sarnau Special Areas of Conservation from 2011-2013. Feingold D. and Evans P.G.H 2014 Bottlenose Dolphin and Harbour Porpoise Monitoring in Cardigan Bay and Pen Llŷn a'r Sarnau Special Areas of Conservation 2011 - 2013. NRW Evidence Report Series Report No: 4, 120 pp, Natural Resources Wales, Bangor.
 - WDC conducted boat based field surveys off the north-east coast of the Isle of Lewis, in the Eye Peninsula to Butt of Lewis MPA Search Location in the summer of 2013. They produced the following reports that are relevant to cetacean issues in the ASCOBANS region: 'Making space for porpoises, dolphins and whales in UK seas: Harbour Porpoise Special Areas of Conservation, as part of a coherent network of marine protected areas for cetaceans': <http://uk.whales.org/sites/default/files/making-space-for-uk-porpoises-dolphins-and-whales.pdf>
- > SWF continued to conduct boat-based line-transect surveys of bottlenose dolphins (and harbour porpoise) around Cardigan Bay 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 Natural resources Wales (Feingold & Evans, 2014a, b).

3.2 GIS Data

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

- > Details of all UK SACs can be found at <http://jncc.defra.gov.uk/page-23>

Specific site details:

- Cardigan Bay/Bae Ceredigion:
<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012712>
- Moray Firth: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0019808>
- Skerries and Causeway: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030383>
- Pen Llyn a'r Sarnau/ Lleyn Peninsula and the Sarnau:
<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013117>
- Dogger Bank: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030352>
- Croker Carbonate Slabs: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030381>
- Pisces Reef Complex: <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030379>
- Wight-Barfleur: <http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030380>
- 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>

Details of MPAs can also be found on the MMO website:
<http://www.marinemanagement.org.uk/protecting/conservation/index.htm>.

Surveys and Research

4.1 Abundance, Distribution, Population Structure

Overview of Research on Abundance, Distribution and Population Structure

> In 2006, the Joint Cetacean Protocol (JCP) project (see <http://jncc.defra.gov.uk/page-5657>) was initiated. The JCP assembled disparate effort-related cetacean sightings datasets from all major sources covering north-west European Atlantic waters e.g. SCANS I & II; CODA surveys; ESAS; SWF; Atlantic Research Coalition (ARC). It also included data from non-governmental and marine renewable industry sources. The JCP is intended to support the identification of trends in distribution and relative abundance but will not generate precise abundance estimates. The Phase III analysis was completed in early 2013, resulting in species specific density layers at the UK scale. Power analysis concluded that the annual population change detectable with good power (>0.8), lay between 6% and 40%, depending on the species.

Three years of annual monitoring of cetaceans has been carried out in Cardigan Bay and Pen Llyn a'r Sarnau SACs (completed in 2013). This was contracted to the Sea Watch Foundation by Natural Resources Wales (NRW). The interim report can be found at <http://www.seawatchfoundation.org.uk/wp-content/uploads/2013/06/CCW-Monitoring-Report-2012.pdf>. The full report is available from NRW on request [Feingold D. and Evans P.G.H 2014 Bottlenose Dolphin and Harbour Porpoise Monitoring in Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation 2011 - 2013. NRW Evidence Report Series Report No: 4, 120 pp, Natural Resources Wales, Bangor]. In addition, in 2013 NRW commissioned the Sea Watch Foundation to conduct ad-hoc photo-ID surveys of bottlenose dolphins around the coast of Anglesey and data from these are currently being compiled.

WDC conducted photo-ID surveys off the Isle of Lewis in Scotland in 2013 and 2014.

> 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), reinforcing earlier findings (Baines & Evans, 2009), funded by the Countryside Council for Wales. 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).

4.2 Technological Developments

New Technological Developments

> The Sea Mammal Research Unit (SMRU) has been developing new methods to track porpoises underwater using three dimensional drifting wide aperture passive acoustic arrays with funding from the Scottish Government.

Improved towed arrays are also being developed to estimate porpoise density more accurately, by localising trains of echolocation clicks.

WDC organised a workshop at the International Marine Conservation Committee on noise reduction technologies for pile driving

4.3 Other Relevant Research

> Other research, including from the voluntary sector includes:

The Institute of Zoology organised and chaired an international workshop on "Euthanasia protocols to optimize welfare concerns for stranded cetaceans" at the Zoological Society of London over 11-13th September. The workshop was convened under the auspices of the International Whaling Commission (IWC), through funding from the UK and Norwegian governments. 30 people from 13 countries attended the workshop. A number of appropriate techniques (both chemical and physical) were discussed and a range of presentations were given. A report of the workshop was submitted to the IWC Scientific Committee for consideration, and has now been widely disseminated via the IWC website. It is hoped that the outputs will provide resource/s for stranding networks internationally to help practically tackle strandings and associated welfare concerns.

Papers from the meeting can be found at <http://iwc.int/eptowcfsc2013>. The final report of the workshop can be found at <http://iwc.int/iwc-report-published-on-stranded-cetaceans-euthana>.

> An updated review of climate change impacts upon marine mammals in UK and adjacent waters was conducted by Evans & Bjørge (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. A number of preservation methods are employed;

- stored frozen at -20oC or -80oC;
- stored in 70% ethanol (parasites);
- or in 10% buffered formalin (fixed samples)

5.4 Database

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

> The CSIP holds data on nearly 11700 cetaceans reported stranded around the UK between 1990 and present day. In addition, detailed pathological data is also held on over 3300 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/).

5.5 Additional Information

Additional information (e.g. website addresses, intellectual property rights, possibility of a central database)

> The CSIP is co-funded by Defra, Scottish Government and Welsh Government, with additional funding also provided by Natural Resources Wales.

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.

Activities and Results

5.6 Necropsies

Number of necropsies carried out in the reporting period

	Number	Recorded cause of death
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<i>Phocoena phocoena</i>	95	Bycatch (n=16), Bottlenose Dolphin Attack (n=15), Starvation (n=14), Starvation (neonate) (n=9), Live Stranding (n=7), Generalised Bacterial Infection (n=6) Pneumonia, Parasitic (n=5), Physical Trauma, unidentified cause (n=5), Others (n=5), Physical Trauma, Boat/Ship Strike (n=3), Gastritis &/or Enteritis (n=2), Pneumonia, Mycotic (n=2), Pneumonia, Bacterial (n=1), Grey Seal Attack (n=1), (Meningo)encephalitis (n=1), Neoplasia (n=1), Not Established (n=2).
<i>Tursiops truncatus</i>	1	Live Stranding (n=1)
<i>Delphinus delphis</i>	20	Bycatch (n=7), Others (n=3), Live Stranding (n=2), Starvation (n=2), (Meningo)encephalitis (n=1), Generalised Bacterial Infection (n=1), Physical Trauma, Boat/Ship Strike (n=1), Neonatal death (n=1), Not Established (n=2).
<i>Stenella coeruleoalba</i>	6	Starvation (n=3), (Meningo)encephalitis (n=1), Pneumonia, Parasitic (n=1), Physical Trauma, unidentified cause (n=1)
<i>Grampus griseus</i>		
<i>Globicephala melas</i>	6	Live Stranding (n=3), (Meningo)encephalitis (n=2), Starvation (neonate) (n=1)
<i>Globicephala macrorhynchus</i>		
<i>Lagenorhynchus albirostris</i>	3	Live Stranding (n=2), Physical Trauma (n=1)
<i>Lagenorhynchus acutus</i>		
<i>Orcinus orca</i>		
<i>Hyperoodon ampullatus</i>		
<i>Mesoplodon bidens</i>	3	Live Stranding (n=2), Physical Trauma, Boat/Ship Strike (n=1)
<i>Kogia breviceps</i>	1	Live Stranding (n=1)
Other (please specify under number)	6 : <i>Balaenoptera acutorostrata</i>	Entanglement (n=3), Generalised Bacterial Infection (n=1), Live Stranding (n=1), Physical Trauma, Boat/Ship Strike (n=1)
Other (please specify under number)	1 : <i>Balaenoptera physalus</i>	(Meningo)encephalitis (n=1)
Other (please specify under number)	1 : <i>Megaptera novaeangliae</i>	Not Established (n=1)
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		

5.7 Other Relevant Information

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

> NB Causes of death in some individuals are provisional and pending the results of follow up analyses.

Finalised causes of death will be given in the CSIP 2013 annual report to Defra and the Devolved Administrations in the UK, which will be shortly published at;

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17835&FromSearch=Y&Publisher=1&SearchText=strandings&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>.

> CSIP

The CSIP Annual Report to Defra for the period 1st January-31st December 2012 may be accessed via the following link:

http://randd.defra.gov.uk/Document.aspx?Document=11840_FINALUKCSIPAnnualReport2012.pdf

Scottish Marine Animal Strandings Scheme

This is an on-going project which provides a systematic and coordinated approach to the surveillance of marine animal strandings. It builds on the wider UK Cetacean Strandings Investigation Programme (CSIP) which is supported by Scottish Government. It aims to collate, analyze and report data for all cetacean, marine turtle, seal and basking shark strandings around the Scottish coast; to determine the causes of death; and to undertake surveillance on the incidence of disease in stranded cetaceans in order to identify any substantial new threats to their conservation status. See: <http://www.strandings.org/>

Relevant New Legislation, Regulations and Guidelines

6.1 New Legislation, Regulations and Guidelines

Please provide any relevant information

> The Exclusive Economic Zone Order 2013 came into force on 31st March 2014. This boundary relates to rights under Part V of the United Nations Convention on the Law of the Sea. The new Exclusive Economic Zone (EEZ) replaces the 200nm fishing limit.

Implementation and enforcement of the Council Regulation (EC) 812/2004 was set into force on 1 July 2013.

The Marine Management Organisation (MMO) is responsible for enforcement in English and Welsh waters, whilst Marine Scotland is responsible in Scottish Waters. This regulation requires each member state to reduce cetacean by-catch through the use of acoustic deterrent devices (pingers), attached to nets, and applies in all of ICES area IV of the North Sea, and areas VII d, e, f, g, h and j.

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.

> The Natural History Museum (NHM) held a one day meeting on 20th September 2013 to mark the centenary of strandings data collection in the UK. A range of presentations were given, including some covering the work of the CSIP.

CSIP staff from NHM and Zoological Society of London (ZSL) also helped run a stall on UK strandings/cetaceans at 'Science Uncovered' at the Natural History Museum on 27th September. Skeletal material, parasites and fixed material was on display, along with a video of a short-beaked common dolphin stranding necropsy carried out at ZSL. Over 10000 people attended on the evening. (<http://www.nhm.ac.uk/natureplus/community/general/science>).

The role of ASCOBANS was publicised throughout both events. The work of the CSIP in the UK (and the role of ASCOBANS) has also been publicised during 2013 through numerous presentations, demonstration necropsies and social media activity by CSIP staff

e.g.<http://www.facebook.com/pages/Cetacean-Strandings-Investigation-Programme-UK-strandings/142706582438320>

Whale and Dolphin Conservation (WDC) reached out to more than 80,000 people through its Wildlife Centre's and Shorewatch volunteer programme in Scotland. They have also continued to provide advice, ideas and assistance with facts, proofing and language to the development of the ASCOBANS website Kids Zone section.

> The twelfth annual National Whale & Dolphin Watch week was organised by Sea Watch Foundation between 27 July and 4 August. Dedicated effort-based watches were conducted at 78 sites and from ten vessels around the British Isles from Shetland to the Isle of Scilly and Channel Islands. More than 500 persons participated directly in the event with 900 hours of observation effort, resulting in 970 sightings involving ten cetacean species (in descending order of frequency: harbour porpoise, bottlenose dolphin, minke whale, short-beaked common dolphin, white-beaked dolphin, Risso's dolphin, killer whale, Atlantic white-sided dolphin, humpback whale, and sei whale). The event received widespread regional and national media coverage. A full report was published (Gibas, 2013).

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 15-16 March, with talks, species ID demonstrations and exhibits

> Publications:

Banguera-Hinestrosa, E., Evans, P.G.H., Mirimin, L., Reid, R.J., Mikkelsen, B., Couperus, A.S., Deaville, R., Rogan, E., and Hoelzel, A.R. (2014) Phylogeography and population dynamics of the Atlantic white-sided dolphin (*Lagenorhynchus acutus*) in the North Atlantic. *Conservation Genetics*, 10.1007/s10592-014-0578-z.

Baylis, A.J. (2013) An investigation of the relationship between reproductive success and home range of the bottlenose dolphin (*Tursiops truncatus*) in Cardigan Bay, West Wales. MSc thesis, University of Bangor. 46pp.

Evans, P.G.H. and Baines, M.E. (2013) A methodology to assess the sensitivity of marine mammals to different fishing activities and intensities. CCW Policy Research Report No 12/6. 83pp.

Evans, P.G.H. and Bjørge, A. (2014) Impacts of climate change on marine mammals. Marine Climate Change Impacts Partnership (MCCIP) Science Review: 134-148.

Feingold, D. and Evans, P.G.H. (2014a) Bottlenose Dolphin and Harbour Porpoise Monitoring in Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation 2011-2013. NRW Evidence Report Series Report No. 4. Natural Resources Wales, Bangor. 124pp.

Feingold, D. and Evans, P.G.H. (2014b) Connectivity of Bottlenose Dolphins in Welsh Waters: North Wales Photo-Monitoring Interim Report. NRW Evidence Report Series Report No. 5. Natural Resources Wales, Bangor.

Gibas, D. (2013) National Whale and Dolphin Watch 2013 Report. Sea Watch Foundation, New Quay, Wales. 18pp.

Lawton, J.A. (2013) Does the behaviour of bottlenose dolphins change in the presence of a vessel? MSc thesis, University of Aberdeen. 22pp.

Nuutila, H.K., Meier, R., Evans, P.G.H., Turner, J.R., Bennell, J.D., and Hiddink, J.G. (2013) Identifying foraging behaviour of wild bottlenose dolphins (*Tursiops truncatus*) and harbour porpoises (*Phocoena phocoena*) with static acoustic dataloggers. *Aquatic Mammals*, 39(2): DOI 10.1578/AM.39.2.2013.

Nuutila, H., Thomas, L., Hiddink, J., Meier, R., Turner, J., Bennell, J., Tregenza, N. and Evans, P.G.H. (2013) Acoustic detection probability of bottlenose dolphins, *Tursiops truncatus*, with static acoustic dataloggers in Cardigan Bay, Wales. *Journal of the Acoustical Society of America*, 134(3): 2596-2609.

Possible difficulties encountered in implementing the Agreement

Difficulties in Implementing the Agreement

Please provide any relevant information

> None

This table includes data obtained during 2013 from examination of stranded animals, as well as reported incidents, meaning there may be a degree of uncertainty. The following information is provided in addition to the cases reported in the CMS online reporting system, due to lack of space within the online reporting form.

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)
27/08/13	Harbour porpoise	Multiple parallel linear incisions lateral body wall	Yes	Unknown-stranded animal, diagnosed at necropsy	River Thames, London, England	Rob Deaville (rob.deaville@ioz.ac.uk)
23/11/13	Minke whale	Dorsal thoracic haemorrhage and fractured cervical vertebra	Yes	Unknown-stranded animal, diagnosed at necropsy	Sea Palling, Norfolk, England	Rob Deaville (rob.deaville@ioz.ac.uk)
19/11/13	Minke whale	Not examined at necropsy- photos showed multiple parallel linear incisions on dorsal body wall	Unknown	Unknown	Cromer, Norfolk, England	Rob Deaville (rob.deaville@ioz.ac.uk) http://www.theguardian.com/environment/2013/nov/26/norfolk-minke-whales-ship-strikes