Agenda Item 2 Annual National Reports 2010

Document 2-05

Annual National Report Germany

Action Requested

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

Submitted by Germany

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

Revised Format for the
ASCOBANS Annual National Report

General Information

Name of Party: Germany	*Period covered:* 2010
	Date of report: 11 February 2011

Report submitted by:	
Name: Oliver Schall	*Function:* ASCOBANS Focal Point of Germany
Organization: Federal Ministry for the Environment, Nature Protection and Nuclear Safety (BMU)	*Address:* Division N I 3 "Species Protection", Robert-Schuman-Platz 3, D-53175 Bonn
Telephone / Fax: +49-22899 3052632 / -3052684	*Email:* Oliver.Schall@bmu.bund.de

Any changes in coordinating authority or appointed member of advisory committee

A reorganisation within the Federal Ministry of Environment was decided in late 2010 with effects from 1.1.2011:
The department "Species Protection " (N I 3 - Head of Departement: Gerhard Adams) will from 2011 onwards be in charge of CMS including ASCOBANS and other Agreeement issues. Furthermore, this departement will be within the German government a cooperation partner for IWC issues, which fall in principle under the competency of the German Ministry for Agriculture.
The focal point for ASCOBANS stays unchanged Oliver Schall.

The following organizations contributed to this report (in alphabetical order):

BioConsult SH GmbH & Co.KG, Brinckmannstr. 31, D-25813 Husum

Federal Agency for Nature Conservation (BfN), AST Vilm, 18581 Putbus

Federal Maritime and Hydrographic Agency (BSH), Bernhard-Nocht-Str. 78, D-20359 Hamburg

Federal Ministry of Defence, Kurt-Schumacher-Damm 41, D-13405 Berlin

Research and Technology Center Westcoast (FTZ), Christian-Albrechts-University Kiel, Werftstr. 6, D-25761 Büsum

German Oceanographic Museum, Katharinenberg 14-20, D-18439 Stralsund

Johann Heinrich von Thünen Institute for Sea Fisheries (vTI), Palmaille 9, D-22767 Hamburg

Lower Saxony State Office for Consumer Protection and Food Safety (LAVES), Institute for Fish and Fishery Products, Schleusenstr. 1, D-27472 Cuxhaven

National Park Administration Wadden Sea of Hamburg, Stadthausbrücke 8, D-20355 Hamburg

National Park Administration Wadden Sea of Lower Saxony, Virchowstr. 1, D-26382 Wilhelmshaven

Naturschutzbund Schleswig-Holstein (NABU), Färberstr. 51, D-24535 Neumünster

Projektträger Jülich, Department for Wind Energy, Forschungszentrum Jülich GmbH, Wilhelm-Johnen-Straße, D-52425 Jülich

Society for Dolphin Conservation Germany (GRD), Kornwegerstr. 37, D- 81375 München

Society for the Conservation of Marine Mammals (GSM), Garstedter Weg 4, D-25474 Hasloh

State Agency for Mining, Energy and Geology of Lower Saxony (LBEG), Marktkirche 9, D-38678 Clausthal-Zellerfeld

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

Accession of other Range States

Germany was in particular active to reach a Russian acession to CMS and relevant Agreements including ASCOBANS. Currently the relevant Russian Natural Ressources Ministry is in coordination with other Public Bodies concerning a CMS acession as a first step and hopes that decisions might be possible in the first months of 2011. Germany organises an anual meeting with the Kaliningrad oblast on environmental issues: called "Kaliningrader Umweltage". During the last meeting within the German delegation was planned to dedicate attention of the next meeting in autumn 2011 to Harbour purpoises in the Baltic Sea in order to reach a participation of the Oblast Kaliningrad (involving may be Polish scientists of the Baltic Sea region too). Furthermore, Germany facilitated secretariat contacts with Norway to catalyze a potential next AC meeting in Norway in 2012 (or later) as a first step in the direction of a Norwegian accession. [Schall, BMU]

Financial support in 2011

The annual financial "Voluntary Contribution" of € 25,600.00 was primarily used to give support to the small project fund (after a decision of the AC not to co-finance a fishery leaflet, for which the German support was originally foreseen).
Beyond this regular annual "Voluntary Contribution", Germany had offered in the 2010 AC meeting to cover 50 % of the costs of a G 4 post in 2011 to support the work of the secretariat, which should be prolongated in 2012 by other free financial means of the current ASCOBANS budget. [Schall, BMU]

A. HABITAT CONSERVATION AND MANAGEMENT

1 Direct Interaction with Fisheries

Investigations of methods to reduce bycatch

Acoustic harassment devices (AHDs) are used to deter harbour porpoises and seals (also from areas of pile-driving). However, so far there is too little information to judge if the deterring effect is sufficient. Therefore, BioConsult SH tested the temporal and spatial effect of the Lofitech sealscarer on harbour porpoises using a combination of visual observations and passive acoustic monitoring with C-PODs. The seal scarer emits pulses at 14 kHz with a source level of about 189dB re 1 µPa, and sound measurements at various distances where carried out. Sighting rates of porpoises significantly declined within the whole 1 km observation radius. Recordings of porpoise echolocation signals by C-PODs were significantly reduced out to a distance of 7 km, with the strongest effect at the nearest

PODs and a weak effect at greater distances. Minimum observed approach distance during 28 hours of sealscarer activity was 700 m. A response study revealed clear avoidance reactions by porpoises out to the maximum studied distance of 2.6 km. However, in some cases no reaction was found, and occasionally porpoises were also recorded by PODs at close distances. This shows that there may be substantial variation between individuals, different motivational states or different environmental conditions. These results show that the application of sealscarers is useful for reducing the number of harbour porpoises that may suffer hearing damage caused by pile driving. However, a complete exclusion of all animals cannot be achieved. [Diederichs, BioConsult SH]

Implementation of methods to reduce bycatch

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

As of October 1st, 2010, for the first time Germany places marine mammal observers on fishing vessels to monitor marine mammal bycatch in commercial fisheries in the North Sea in accordance with EU Regulation 812/2004. These observers record bycatch as well as the composition of the catch in commercial fisheries. [Kock, vTI]

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

2 Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

The Federal Ministry for the Environment (BMU) organized in the BMU in Berlin a national workshop about "Underwater noise" and its effects on Small Cetaceans (9 March 2010). This workshop took place in close cooperation with the Ferderal Environment Agency (UBA) and the Federal Agency for Nature Conservation (BfN). Participants came from the other relevant ministries and their subsequent authorities and other scientists, NGOs and stakeholders concerned. In the awareness of the detrimental effects of underwater noise on Small Cetaceans, the aim and the result of the workshop were:
- to reach a synopsis of the current state of research (who is worlking on which issues);
- to have prospects on foreseen research projects;
- to spot the knowledge gaps so far not covered by research projects;
- to reach synergies between projects and reach potential possibilities of a closer cooperation.

As a further result a list of the current research projects was compilated. [Schall, BMU]

Following the instructions for the German Navy on the protection of marine mammals and maritime habitats that were enacted in September 2007, marine mammal sightings are collected continuously by the German naval fleet and recorded in a database to improve knowledge about the distribution and habitat use of abundant cetacean species. This information is taken into account for the planning of the use of sonar systems during trials. An international, 3 years project within the European Defence Agency (EDA) to establish a common marine mammal database for risk assessment was started. The data base will contain sighting records, probabilities of occurrence, habitat use and species' characteristics.

Moreover, to reduce the risk for marine mammals during explosions (disposal of old ammunition in the Baltic Sea), the effect of an air bubble curtain for the attenuation of shock

waves was further examined. [Velte, Ministry of Defence]

The exploration drilling project L1-2 (Gas) was performed in the Natura 2000 area “Borkum Riffgrund” during the first three months of 2010. To limit adverse effects on cetaceans (mainly harbour porpoises) the main pairing and breeding times where excluded for the project. Additional technical measures where taken to avoid sound impulses by drilling in a conductor pipe instead of using hammering technologies. Furthermore, during the whole project, professional marine mammal observers and passive acoustic monitoring devices (PODs) where used to obtain a documented picture of potential whale presence and behaviour. (see Technical report 7/2010 from Ocean Science Consulting Ltd.) [Machetanz, LBEG]

In 2009, a total of12 offshore wind turbines have been constructed at the first German offshore wind farm, the testfield “alpha ventus”. The noise emitted during pile driving was monitored as determined in the licensing conditions set by the Federal Maritime and Hydrographic Agency (BSH). The measurements of underwater sound were conducted according to the Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK3). For the description of the measurement requirements according to StUK see under http://www.bsh.de/en/Products/Books/Standard/index.jsp. Additional underwater sound measurements were conducted during pile driving for the testfield “alpha ventus” in the framework of a research project on ecological aspects of wind farms, so called “StUKplus” coordinated by the Federal Maritime and Hydrographic Agency (BSH) and funded by the Federal Ministry of the Environment. More information may be found in German under: http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUKplus/stukplustext.jsp. The underwater sound measurements in “alpha ventus” revealed a Sound Exposure Level (SEL) of 168 db re 1µPa at a distance of 750 m from the pile. The threshold of maximal 160 dB re 1µPa (SEL) set in the licensing conditions by BSH was exceeded by 8 dB. The report may be found in German under: http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3-Schall-Bauphase-15Mar2010.pdf. The results may also be found in a presentation in English under: http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Betke.pdf.

An additional research project in “alpha ventus” was dealing with the development of a mitigation procedure based on a so called “little bubble curtain (LBC)”. Technical limitations of the application of LBC allowed only a partial noise reduction of about 10 dB. However, the application of LBC in the field still remains a matter of further research and technological development.

Furthermore, the German licensing authority BSH organized on 21st March 2010 in Stralsund in the frame of the conference of the European Cetacean Society an international workshop dealing with aspects of offshore pile driving and noise mitigation. Based on the noise measurements in “alpha ventus”, scientists, authorities and agencies, NGOs and members of the offshore wind energy industry discussed the impacts of pile driving on marine mammals and the application of possible mitigation measures. Additionals information about licensing conditions, noise monitoring and mitigation measures applied in “alpha ventus” may be found under:
http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Abromeit.pdf
http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Betke.pdf
http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Griessmann.pdf
http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Elmer.pdf
[Boethling, BSH]

In 2009, the first German offshore wind farm “alpha ventus” was built approximately 45 km north of the island of Borkum, North Sea, in 30m water depth. The wind farm consists of 12 turbines, six built on tripod foundations and the other six on jacket foundations, all of which had to be rammed into the sea floor. Noise emissions from offshore pile-driving may injure marine mammals in the vicinity and cause large-scale disturbance and habitat

displacement. BioConsult SH studied the effect of these pile-driving activities on harbour porpoises using acoustic dataloggers (T-PODs) that record harbour porpoise echolocation signals and were deployed at different distances to the construction site.

Besides a distinct seasonal pattern of porpoise activities resulting in a high number of recordings during late winter and low number during late spring, we found a clear impact of pile-driving on harbour porpoise click recordings. Analysis of relative porpoise activity measured as porpoise positive minutes per hour and waiting time between consecutive porpoise recordings further revealed a clear difference between the ramming of the two types of foundations. On average, pile-driving for the tripod foundations took more than five hours for each foundation. After these six piling periods animals stayed away from the impact area for a longer period than after the six piling periods for jacket foundations that took only one hour each. Furthermore, the displacement of porpoises during the long-lasting ramming periods reached up to greater distances. The report can be downloaded at http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3_av_2009_marine_Saeugetiere.pdf.

Additionally, the following on-going studies on noise impact on harbour porpoises are conducted by BioConsult SH. Results will be presented/published after finalisation:

- Effects of pile driving on harbour porpoises at the wind farm Baltic1 (Baltic Sea).
- Occurrence and distribution of harbour porpoises in the Fehmarnbelt area.
- Case study on potential barrier effects of the Great Belt Bridge, Denmark, on harbour porpoises
- Monitoring the potential disturbance / displacement effects on harbour porpoises caused by construction activities of the Nordstream pipeline in the Pomeranian Bight by the use of stationary acoustic monitoring devices (PODs).

Please also note the publication by Brandt, M. J., Diederichs, A., Betke, K. & Nehls G (2011): Responses of harbour porpoises to pile driving at the Horns Rev II offshore wind farm in the Danish North Sea. Marine Ecology Progress Series 421: 205–216. [Diederichs, BioConsult SH]

Registration and occasional necropsy of stranded small cetaceans were made according to a state monitoring programme as part of the approval of the port extension of the offshore windpark industry and the due shoreline construction work. The monitoring programme is temporarily (2010), and regionally restricted to the Lower Saxony side of the Elbe estuary. The monitoring shall both evaluate, whether numbers of strandings are coinciding with the construction work and resulting underwater noise, and whether bacteria might cause pulmonal diseases in stranded small cetaceans. During construction work in 2010 no stranded small cetaceans were registered in the observed area. [Ramdohr, LAVES]

In 2010 an auditory study on harbour porpoises was continued to validate the temporary threshold shift (TTS) level for impulsive noise. This project is conducted by the FTZ in cooperation with NERI (Denmark) and Fjord&Baelt (Denmark) and aims at testing the acoustic tolerance in another captive harbour porpoise as well as free-ranging animals. [Siebert, FTZ]

2.2 Ship Strike Incidents

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

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

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information

**Two or more animals*

2.4 Pollution and Hazardous Substances

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

2.5 Other Forms of Disturbance

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

3 Marine Protected Areas for Small Cetaceans

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

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

SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

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

New data for a marine mammal data base (containing sightings, strandings, worldwide maps of occurrence and characteristics of 126 species) were integrated from freely available and provided sources. For the use within the German naval fleet a prototype of an html-based atlas of marine mammals was prepared, containing information on species characteristics, behaviour, abundance, distribution and secondary information (e.g. Marine Protected Areas). [Velte, Ministry of Defence]

Since 2007 data (sighting reports by sailors, boaters, hikers and local residents) on the appearance of harbour porpoises in the German river Weser are collected by GRD and local authorities to determine their habitat use in the river. In 2010 in addition to the sightings scheme 2 C-PODs were deployed. From the data, there is evidence that porpoises have been prevented from entering areas south of a port construction site (Brake) during periods of ramming. [Koschinski, GRD]

Sightings of Habour purpoise in the mouth of the river Elbe are collected regularly by the crew of the ferry boat travelling between Cuxhaven and Neuwerk. [Körber, NP Admin. Wadden Sea of Hamburg]

In spring 2010, a second monitoring survey covering the coastal waters of Lower Saxony was accomplished by using standard line-transect-methods. Again, as in 2008, the results showed a higher density of harbour porpoises in the western part of this area than in the eastern part. Compared to the results of 2008, however, the density in general decreased significantly for reasons unknown. GIS-data and report are available from the homepage of the National Park Administration Wadden Sea of Lower Saxony: http://www.wattenmeer-nationalpark.de/nds The combined effort of the county of Wesermarsch and the Society for Dolphin Conservation Germany to detect harbour porpoises entering the river Weser is still ongoing. See also http://www.delphinschutz.org/projekte/weser/index.htm
[Czeck, NP Admin. Wadden Sea of Lower Saxony]

With the financial support of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Agency for Nature Conservation, the German Oceanographic Museum is conducting static acoustic monitoring of harbor porpoises using T-PODs (porpoise click detectors) in the Baltic Sea. With a network of up to 42 positions, the long-term data set from 2002 to 2007 has showed seasonal and geographical patterns revealing migration behaviour that recurres annually. Moreover the study highlighted that, despite the dramatic decline of the population, the harbor porpoise still occurs in the entire German Baltic Sea.

Since 2008 the study has been continued with only 12 positions, all within the German exclusive economic zone (EEZ). Results from 2010 confirmed the findings of previous years with higher porpoise detection rates for the western part of the German Baltic compared to positions in the East as well as a seasonal increase in porpoise registrations during summer and a decrease in the winter period.

Since 2009, the C-POD, the digital successor of the T-POD, replaces older click detectors. Future monitoring projects such as the currently launched SAMBAH (Static Acoustic Monitoring of the BAltic Harbor Porpoise) project are now using C-PODs. The aim of this pan-Baltic project is to initiate a best practice methodology and to provide data for reliable assessments of distribution and habitat use for this species to allow an appropriate designation of protected areas for this species within the NATURA 2000 network as well as other relevant mitigation measures. [Hansen, German Oceanographic Museum]

A large research project initiated and coordinated by the Federal Maritime and Hydrographic Agency (BSH) and funded by the Federal Ministry of the Environment is

dealing among others very extensively with possible impacts of the construction and operation of offshore wind turbines on marine mammals. Ongoing research on possible effects of pile driving and operation of "alpha ventus" on the abundance and distribution of marine mammals, especially of harbour porpoises is based on ship-based and aerial line-transect observations. For the investigation of the activity and habitat use of harbour porpoises, acoustic loggers (CPODs) are employed. Visual and acoustic investigations of harbour porpoises for the "StUKplus-Project" are conducted by the Research and Technology Centre, West Coast, University of Kiel. The main objectives of the "StUKplus" (standard investigation concept) studies are

a) to evaluate the monitoring concept according to the "Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment" (StUK3) and
b) to make recommendations on field methods as well as on the extent of temporal and spatial investigations according to StUK.

Moreover, the "StUKplus-Project" deals with the joint analysis and evaluation of all data on the abundance and distribution of marine mammals in German waters gathered by research projects, national monitoring activities and environmental impact assessments (EIAs) for offshore wind farms. The main objectives of this working package are the evaluation of data from EIAs, recommendations for further investigations for EIAs and monitoring of the impacts of offshore wind farms and the joint analysis of all available data for the German EEZ to be able to study cumulative effects. The FTZ is analyzing the data of visual and acoustical investigations in cooperation with the BSH. Up to the end of 2010, a major part of the data from EIAs of planned offshore wind farms in the German EEZ were evaluated and analyzed. A total effort of 81,804 km of aerial transect lines for EIAs have resulted in the following effective effort as well as the following number of harbour porpoise sightings:
- in spring: 24,872 km with 1548 sightings (of 1650 adults with 12 calves)
- in summer: 27,522 km with 935 sightings (of 1104 adults with 116 calves)
- in autumn: 15,058 km with 392 sightings (of 454 adults with 30 calves)
- in winter: 14,352 km with 532 sightings (of 620 adults with 10 calves)

[Boethling, BSH]

The following dedicated visual surveys to assess abundance and distribution of harbour porpoises were conducted by the FTZ:

In 2010, five dedicated aerial surveys were carried out in the southwestern part of the German North Sea and in parts of neighbouring Dutch waters as part of the research around the offshore testfield "Alpha Ventus". Between March and October 2010, a total of 6.500 km were covered on effort and a total of 597 harbour porpoise sightings (730 individuals, of these 34 calves) were recorded. The highest density has been estimated in June 2010, the lowest in October 2010. This research is funded by the Federal Environment Ministry (BMU) and coordinated by the Federal Agency for Shipping and Hydrography (BSH).

Two aerial surveys were carried out in the area of the East Frisian Islands, in April and May 2010. These surveys in the coastal sea revealed a high density of harbour porpoises in May, with a pronounced west-east gradient. These surveys were funded by the Wadden Sea National Park Administration of Lower Saxony and are part of their monitoring programme.

Two aerial surveys were carried out in the northeastern part of the German North Sea, in the area of the pSCI Sylt Outer Reef. In June 2010, an effort of 1.660 km could be achieved and a total of 309 harbour porpoise sightings (381 individuals, of these 33 calves) were recorded. In July 2011, effort has been comparable with 1.620 km, but the sighting rate was much lower: a total of 127 sightings with 150 individuals (of these 5 calves) were recorded.

In the German Baltic Sea and in parts of Danish waters, three aerial surveys were conducted in spring, summer and autumn of 2010. The effort has been comparable

between the seasons with a total of 1.500 km and highest sighting rate has been recorded in summer. These surveys are part of the German monitoring programme of Natura 2000 sites, funded by the Federal Agency for Nature Conservation (BfN). [Siebert, FTZ]

Since 2002, the Society for the Conservation of Marine Mammals is collecting opportunistic porpoise sightings in the Baltic Sea (see also point 7.1). As requested by ASCOBANS and HELCOM all data have been transferred to the HELCOM Secretariat for further use; all data are available to interested parties. The data collected between 2003 – 2008 amounts to a total of 5561 sightings and have been analysed in detail. The results regarding seasonal variation; group size and composition; sightings with juveniles (n=539) etc. have been published at the 17th AC/ASCOBANS (document submitted by BMU) as well as at the annual conference of ECS (European Cetacean Society) in Stralsund. Furthermore, all data of (life) sightings and (dead) strandings have been transferred in a database from MSExcel to MSAccess. The online system for sightings, includes an notification scheme in real time. [Deimer, GSM]

4.2 New Technological Developments

Please provide a brief summary of any relevant information

A new technical design for an air bubble curtain system was developed and tested in 2010 by the FTZ in cooperation with FH Kiel gGmbH. This system should be used as a sound mitigation method during pile driving installations of offshore wind turbines. [Siebert, FTZ]

An international, 3 years project within the European Defence Agency (EDA) to establish a common marine mammal database for risk assessment was started. The data base will contain sighting records, probabilities of occurrence, habitat use and species' characteristics. [Siebert, FTZ]

4.3 Other Relevant Research

Please provide a brief summary of any relevant information

A study about the classification of marine mammal signatures with methods of speech recognition (e.g. Hidden Markov Models) was continued. The study will go on within a European Defence Agency (EDA) project for the improvement of detection and classification methods for marine mammals. [Velte, Ministry of Defence]

The collection of information about incidental strandings and sightings-by-chance is being continued in the wadden sea national park of Lower Saxony.
[Czeck, NP Wadden Sea of Lower Saxony]

In the licensing conditions for the testfield "alpha ventus", visual and acoustic monitoring of the abundance, distribution and habitat use of harbour porpoises has been ordered by the licensing authority BSH. Monitoring investigations have been conducted since 2008 prior and during the construction phase according to the "Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment" (StUK3). The monitoring investigations of the operational phase are still ongoing. The description of the monitoring of effects on harbour porpoises may be found under:
http://www.bsh.de/en/Products/Books/Standard/index.jsp

The results of the visual monitoring prior to construction may be found under:
http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/alpha_ventus_fg_marine_saeuger_090128.pdf

The results of the acoustic monitoring prior to construction may be found under:

http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/alpha_ventus_fg_TPODs_090121.pdf as well as http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3_av_2009_marine_Saeugetiere.pdf

According to standard investigation concept (StUK), acoustic monitoring of the activity and habitat use of harbour porpoises is required for all EIAs. Investigations with single POD devices proved to be inconvenient due to conflicts with shipping and fisheries resulting in loss of devices and data. The BSH proposed a new investigation design with POD-stations building a POD-net of reference points instead of single devices. Since January 2010, eight POD-stations each consisting of four marker buoys and three POD-devices are deployed by offshore wind farm operators with positive results. The main objective of the POD-net is the continuous monitoring of gradients in the habitat used and activity of harbour porpoises. By the end of 2010, the POD-net was extended to 13 stations. Up to now positive experiences could be gathered with the POD-net. The data evaluation and analysis will follow. [Boethling, BSH]

B. USE OF BY-CATCHES AND STRANDINGS

5 Post-Mortem Research Schemes

Contact details of research institutions / focal point	Lower Saxony (LS): LAVES-Institute for Fish & Fishery Products Schleusenstr. 1, D-27472 Cuxhaven [Dr S. Ramdohr] Schleswig-Holstein (SH): FTZ, Werftstr. 6, D-25761 Büsum [PD Dr. Ursula Siebert]
Methodology used (reference, e.g. publication, protocol)	LS: Basic biological and anatomical data were collected and registered so far. Necropsy is performed occasionally. SH: Post mortem examinations were performed according to the Proceedings of the First ECS Workshop on Cetacean Pathology (Kuiken and Hartmann, 1993). Measurements were taken in metric system.
Collection of samples (type, preservation method)	LS: Pathological samples will be collected and examined during necropsy if required. SH: All organ systems were examined macroscopically and samples of lesions and different organ systems, including lungs, trachea, stomach (1st, 2nd, and 4th compartment), intestine, esophagus, liver, pancreas, thyroid gland, adrenal gland, kidney, urinary bladder, testis, uterus, ovary, spleen, thymus, pulmonary and intestinal lymph nodes, retropharyngeal lymph nodes, heart, aorta, skeletal muscles, rete mirabilis of the intercostal musculature, skin, blubber, brain, spinal cord, eye, bone, bone marrow, and tissue of the aural peribullar cavity, blood, urine etc. Formalin, alcohol, other special fixation, frozen at –20-30°C or 70-80°C, OCT etc.
Database (Number of data sets by species, years covered, software used, online access)	LS: Data were collected and registered for administrative purpose so far. Scientific analysis is postponed. SH: MySql, Postgresql, Access, Excel Between 1990 and 2010 the following number of data sets has been collected per species (data recorded until 15.01.11): Phocoena phocoena: 2799 Delphinus delphis: 6

	Lagenorhynchus albirostris: 26 Lagenorhynchus acutus: 1 Stenella caeruleoalba: 1 Delphinapterus leucas: 1 Delphinapterus ampullatus: 1 Physeter macrocephalus: 6 Balaenoptera acutorostrata: 6 Balaenoptera physalus:6 Globicephala melaena: 3 Tursiops truncatus: 1 Mesoplodon bidens: 1
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	LS: Collecting information about incidental strandings and sightings by-chance is continued (see at http://www.wattenmeernationalpark.de/nds) SH: Data should be put in an international data base after publication. Use and interpretation of data sets should be restricted. Exchange and comparison of all data collected in different countries. This will give a more precise picture of the different subpopulations of harbour porpoise.

5.1 Number of Necropsies Carried out in Reporting Period:

Species	**Recorded cause of death**
Mecklenburg-Vorpommern: Phocoena phocoena: 23 (Jan.-Sep.) No necropsies in 2010 due to decay of animals found.	Recorded strandings and bycatch, only partially necropsied [Harder & Dähne, German Oceanographic Museum]
Lower Saxony: Phocoena phocoena: 35 No necropsies in 2010 due to decay of animals found.	Recorded strandings, only partially to be necropsied (necropsies are postponed) [Ramdohr, LAVES]
Schleswig-Holstein: Phocoena phocoena: 152 (until 15 Jan. 2011)	[Siebert, FTZ]

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

Potential impacts of pingers (acoustic deterrent devices) in EU fisheries on harbor porpoises: Following the investigations of the BMVEL pilot project on morphology and histology of harbor porpoise ears, the aim of this study was to investigate potential anthropogenic noise impacts. Echolocation is the main sense in harbor porpoises and important for detection of food, predator avoidance, navigation and communication. Therefore, it is likely that pathological changes in the ears cause impairment of auditory function which subsequently contribute to the etiology of by-catches and strandings. In total, 42 ears from 21 harbor porpoises from the German and Danish North and Baltic Seas were decalcified with EDTA, embedded in celloidin and evaluated histologically for acoustic and other pathological changes after H&E staining. Data were compared with results from continuative microbiological, histological, serological, parasitological and virological studies as well as detailed necropsy data of the total carcass and of computed tomography of the ear region. Immuno-histochemical and special staining techniques for the investigation of

inflammatory and degenerative changes in paraffin-embedded ears were tested. Seventeen porpoises were accidentally by-caught and died of acute heart and circulatory failure due to hypoxic shock after entanglement. Four animals stranded and died due to a septic shock or severe encephalitis. General data on morphology of harbor porpoise ears was compiled and different pathological changes due to inflammation and trauma, as well as age related changes have been investigated. An atrophy of the organ of Corti was seen in two porpoises from the river Elbe, Gemany. Fourteen animals showed mild to severe hemorrhage in the basal parts of the scala tympani and some animals also in the scala vestibuli. A fracture with callus formation and bone sequestrum was found in an adult porpoise. Partly severe follicular hyperplasia was found in ears with verminous or fungal otitis media.

Fungal infections and severe nematode infestations may be associated with immuno-suppression, which is associated with increased tissue concentrations of contaminants or antibiotics discharged into the sea. Furthermore, marine mammals are exposed to different acoustic insults, such as from pingers, boat noise, military sonar, blasting of ammunition or construction of offshore windfarms. This report underlines the need for the ear to be investigated systematically in cetaceans in order to better understand impairment of the health status and hearing ability of marine mammals. The study was financially supported by the German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). [Siebert, FTZ]

Strandings of marine mammals in Germany are also summarised and reported in the Scientific Progress Report to the International Whaling Commission and are thus available for further analysis. [Kock, vTI]

C. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

Please provide any relevant information.

D. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

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

Results of the Weser research project (see section 4.1) were presented at the ECS conference and published on the GRD website and in their members' magazine. Moreover, a publication entitled "The Return of the Harbour Porpoise, Phocoena phocoena, to the Weser River - Results from Opportunistic Sighting Surveys and Passive Acoustic Monitoring (2007 – 2010)" is under preparation. [Koschinski, GRD]

During the last years, harbour porpoises were frequently sighted passing the shoreline near Wilhelmshaven during spring. A panel to inform tourists about the situation was erected at the Südstrand (southern beach) in Wilhelmshaven in May 2010.
[Czeck, NP Wadden Sea of Lower Saxony]

The three non-governmental organisations NABU, GSM and GRD held the international

conference on “Minimizing Risks for the Environment in Marine Ammunition Removal in the Baltic and North Sea” (MIREMAR; 16 – 18 November 2010 in Neumünster, Germany). The aim of the conference was to give an overview of the situation and present developments concerning the treatment of sea dumped and unexploded ordnance (UXO) under water. The main objective was to identify best practice procedures and recently developed best available techniques to avoid underwater blasts as final clearing method for very dangerous ordnance devices.

With this conference, public awareness for the conservation of the marine environment and marine mammals was raised. The bubble curtain as an (interim) measure to reduce underwater noise is getting more and more accepted by authorities and the general public in the federal state of Schleswig-Holstein. The view that unexploded ordnance represents point sources of pollution has been promoted. As a result of activities of the three NGOs, in Schleswig-Holstein, detonations of old ammunition are only regarded as exemptions. [Koschinski, GRD, GSM & NABU]

Following the annual tradition since 2002, the Society for the Conservation of Marine Mammals has again approached at least 450 sailing clubs, marinas and campgrounds as well as several yachting magazines and the general media to raise awareness for its project “Sailors on the lookout for harbour porpoises in the Baltic Sea at large – Kattegat, Belt Sea, Sound, Western Baltic and Baltic Proper”. The media feedback is still very good, and the dissemination of the request for sightings is widespread. As in the past, the results – including dead strandings (ca. 170 dead porpoises along the German part of the Baltic) - have been published by the Federal Agency for Nature Protection (Bundesamt fuer Naturschutz) in an interactive map at: http://www.habitatmare.de/de/schweinswalsichtungen1m.php. [Deimer, GSM]

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

Please provide any relevant information.

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

UNEP/CMS/ASCOBANS Secretariat

UN Campus

Hermann-Ehlers-Str. 10

53113 Bonn

Germany

Tel: +49 228 815 2416

Fax: +49 228 815 2440

Email: ascobans@ascobans.org