

2015 ASCOBANS Annual National Reports

This questionnaire has been pre-filled with answers given in 2014 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.

General Information

Name of Party

> Germany

Report prepared by

This should indicate the name and affiliation of the lead person for filling in the report.

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Coordinating Authority and National Coordinator

Please confirm the Coordinating Authority responsible for the national implementation of the Agreement, and give the name and contact details of the officially appointed National Coordinator (Focal Point).

> Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Unit N I 3 (Species Protection), Robert-Schuman-Platz 3, D-53175 Bonn

Oliver Schall

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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

> Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Unit N I 3 (Species Protection), Robert-Schuman-Platz 3, D-53175 Bonn

Federal Ministry for Food and Agriculture (BMEL), Rochusstr. 1, D-53123 Bonn

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

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

Federal Environment Agency (UBA), Wörlitzer Platz 1, D-06844 Dessau – Roßlau

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

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

Thünen Institute of Baltic Sea Fisheries (TI); Dr. Christian von Dorrien; Alter Hafen Süd 2, D-18069 Rostock - Germany

Schleswig-Holstein's Ministry of Energy, Agriculture, the Environment and Rural Areas (MELUR), Mercatorstrasse 3, D-24106 Kiel

Free and Hanseatic City of Hamburg, State Ministry for Urban Development and the Environment (BSU), Administration for the National Park Wadden Sea of Hamburg, Neuenfelder Straße 19, D-21109 Hamburg

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

Schleswig-Holstein's Government- Owned Company for Coastal Protection, National Parks and Ocean Protection (LKN), Schlossgarten 1, D-25832 Tönning

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

Institute of Terrestrial and Aquatic Wildlife Research (ITAW) of University of Veterinary Medicine Hannover (TiHo), Foundation, Werftstr. 6, D-25761 Büsum
German Oceanographic Museum (DMM), Katharinenberg 14-20, D-18439 Stralsund
BioConsult SH GmbH & Co. KG, Schobüller Str. 36, D-25813 Husum
Society for Dolphin Conservation (GRD), Kornweger Str. 37, D-81375 München
Christian-Albrechts-Universität Kiel (CAU), Olshausenstr. 40, D-24098 Kiel
Projektträger Jülich (PTJ), Department for Wind Energy, Forschungszentrum Jülich GmbH, Wilhelm-Johnen-Straße, D-52425 Jülich
F³: Forschung / Fakten / Fantasie; Prof. Dr. Boris Culik; Am Reff 1, D-24226 Heikendorf
NABU (the Nature and Biodiversity Conservation Union) Dr. Kim Detloff; Charitéstraße 3; 10117 Berlin
University of Hamburg, Zoological Institute, Veit Hennig, Martin-Luther-King-Platz 3, D-20146 Hamburg
Whale and Dolphin Conservation (WDC). Fabian Ritter, Leiter Meeresschutz, Implerstraße 55; D-81371 München

Habitat Conservation and Management

Fisheries Interactions

Direct Interaction with Fisheries

1.1 Investigations of methods to reduce bycatch

> 'Porpoise ALarm' (PAL)

The Thünen Institute for Baltic Sea Fisheries (Rostock) and F³: Forschung.Fakten.Fantasie (Kiel), with financial support from the German Federal Ministry of Food and Agriculture (BMEL), continued their project to develop and test a new type of acoustic deterrent device - a 'Porpoise ALarm' (PAL). The pingers that fishermen are currently using are potentially controversial as they are suspected of driving porpoises away from their natural habitats. In contrast the PAL generates porpoise communication noises which in theory warn animals in the vicinity about the presence of nets, which in turn may reduce bycatch rates.

To test their practicability and effectiveness, PAL devices were deployed on a small number of German and Danish commercial gillnet vessels while carrying out their normal fishing activities in the Baltic Sea for several months in 2015. For the trials, specifically those fisheries were selected that are active in areas where higher bycatch rates of harbor porpoises could be expected. During these trials, bycatch of six individuals in German waters was observed. Due to the trials setup, the very limited number of observed fishing vessels and the low number of documented bycatch events, it is not possible to further extrapolate the results. First results concerning practicability and effectiveness of PAL are promising, but further development and trials are necessary until the end of the project in May 2017 [TI; F³].

> Alternative fishing gear

NABU (Nature and Biodiversity Conservation Union) runs a research project on alternative gear types commissioned by the Federal Agency for Nature Conservation (BfN). The project aims to run test fisheries with automatic longlines and jigging machines and looks into potential tests with baited pots in order to investigate their application and cost-effectiveness in German waters. Project goals are:

- Run test fisheries with different techniques in German Baltic waters
- Support innovative development of different gear types reconditions in German waters
- Prepare the ground for other techniques than gillnets
- Investigate catch rates and potential bycatch of seabirds and harbor porpoises, but also of undersized fishes
- Investigate cost-effectiveness of selected gear types
- Support sustainable fishery management in MPAs

Since November 2013 different vessels have been equipped with longline systems and jigging machines. The project is accompanied by an intense monitoring and observer programme comparing new techniques with the established gillnet fishery. Test fisheries were conducted until May 2015. The final report will be presented in 2016.

A close cooperation with fishermen and fisheries science (Thünen Institute) as well as international experts from Sweden and Poland has been established [NABU; BfN].

1.2 Implementation of methods to reduce bycatch

> North sea

In the whale sanctuary within the National Park Schleswig-Holstein Wadden Sea all kinds of gillnet fishery are prohibited within the 3 nautical mile zone for German fishermen according to the federal state regulation („Landesverordnung zur Änderung der Landesverordnung über die Ausübung der Fischerei in den Küstengewässern vom 4. Dezember 2013“).

Beyond the 3 nautical mile zone gillnet fishery in the whale sanctuary with nets exceeding a specific height and mesh size (nets with a stretched span between bottom-line and float-line higher than 1.30 m and a mesh size above 150 mm) is prohibited [MELUR].

> Baltic sea

Based on the voluntary agreement for the conservation of harbour porpoises and sea ducks in the Baltic Sea („Freiwillige Vereinbarung zum Schutz von Schweinswalen und tauchenden Meeresenten) between Landesfischereiverband, Fischereischutzverband, Ostsee Info-Center (OIC)“ the fishermen voluntarily avoid the areas, where sea ducks actually occur in great numbers between November and March. The OIC announces the areas.

The fishermen voluntarily reduce gillnets in the month of July and August in order to reduce cetaceans bycatch [MELUR].

For info regarding the voluntary agreement see:

(http://www.ostseeinfocenter.de/Freiwillige_Vereinbarung_Fortschreibung_2015.pdf)

1.3 Other relevant information

Other relevant information, including bycatch information from opportunistic sources

> No other relevant information for 2015

1.4 Report under EC Regulation 812/2004

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

> no further information

Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

> "Underwater noise" project

The "underwater noise" project (Cluster 7 "Impacts of underwater noise on marine vertebrates"), funded by the Federal Agency for Nature Conservation (BfN), finalized in February 2015. This project was coordinated by the ITAW and performed in close cooperation with other research institutions (University Aarhus, Denmark, DW-ShipConsult, and University St. Andrews, UK). It covered a broad spectrum of diverse and varied tasks. The main goal was to develop verifiable norms for the estimation of the impact of underwater noise on marine organisms. In distinct subprojects the hearing sensitivity of harbour porpoises was investigated. Furthermore, this project had the aim of developing an acoustic tag with GPS positioning that could estimate the effect of anthropogenic noise on harbor porpoises. Subsequently this tag was deployed on wild porpoises and the data evaluated in the context of noise.

In addition, in order to complement the information about noise in the ocean, acoustic noise mapping in Natura 2000 protected areas of the North and Baltic Seas using stationary noise recording systems is carried out. Data were collected at different locations in the Baltic and North Seas [Siebert, Ruser, Unger, Lehnert ITAW; Wittekind, Schuster DWShipConsult; Teilmann, Miller, Madsen, Tougaard Univ. Aarhus, Denmark; Johnson, Univ. St. Andrews, UK].

> Monitoring of impacts of wind farm construction

In concurrence with the Cluster 7, ITAW and DW-ShipConsult carried out a project in the Sylt Outer Reef to estimate the impact of two ongoing wind farm constructions bordering this Natura 2000 site. In 11-12 positions, around the construction sites Amrumbank West and Butendiek, noise-loggers, which record in the audible range of humans, and C-PODs, which record the echolocation 'click' of harbour porpoise, were deployed. This project ended in 2015 and was funded by the BfN [Rasmussen, Siebert, Wölfing, Ruser ITAW; Wittekind, Schuster DW-ShipConsult].

> Noise mitigation measures

At the end of 2013 the German Environment Minister decided a "Concept for the Protection of Harbour Porpoises from Sound Exposures during the Construction of Offshore Wind Farms in the German North Sea". At the end of 2015 due to a decision of the German Environment Minister the works were started to elaborate such a concept for the Baltic sea too, which will use the North Sea concept as a first guidance. [BMUB]

In 2014 three wind farms conducted installation work, including pile driving in the German EEZ of the North Sea. All three wind farms applied noise mitigation measures according to the incidental provision Nr. 14 of the licences given by BSH (Federal Maritime and Hydrographic Agency).

The noise mitigation measures include both a tight monitoring of the pile driving activities including measures to prevent the presence of marine mammals in the vicinity of the construction location and technical measures to reduce pile driving noise. The technical noise mitigation systems applied in 2014 demonstrate a very successful development compared to technical systems applied in 2013.

One of the construction sites installing monopiles of 6.2 m diameter applied the IHC Noise Mitigation System (NMS-6500) and was able to meet the threshold value of 160 dB re 1 µPa s² at 750 m distance to the source. At another construction site a combination of two systems - the IHC Noise Mitigation System and a Big Bubble Curtain System (BBC) was applied for mitigating the noise of the installation of monopiles with diameter up to 6.2 m. At this case due to the combination of IHC and BBC-System pile driving noise fell far below the threshold value.

At the third construction site a combination of a so called Hydro Sound Damper System (HSD) with a Double Big Bubble Curtain System (DBBC). The threshold values could be met at about 50% of the installations. At this site the liability in offshore installation and the noise reduction potential of the Hydro Sound Damper System was proven for the first time during the consecutive installation of 67 monopiles.

The general schema of the monitoring and prevention measures included following items:

- Hydro-acoustic measurements at 750 m, 1.500 m and in the next conservation site (SCI)
- Passive acoustic measurements of the harbour porpoise activity combined with the hydro-acoustic measurements

- Operation of ADDs (pingers) 40 min before pile driving activities start
- Operation of AHD (seal scarer) 10 min after the deployment of the ADDs – ADDs and AHD are removed at latest five minutes after starting with hammering
- Soft-start procedure with hammer energy increasing smoothly and remaining below 500kj for 10 to 20 minutes

The technical noise mitigation measures in 2014 included the following main mitigation systems:

- IHC Noise Mitigation System (NMS 6500) – threshold values were met at 90 % of the installations
 - IHC Noise Mitigation System (NMS 7000) in combination with a simple big bubble curtain system (660 m hose with two-sided air supply and outer ballast chain) – threshold values were met at more than 95% of the installations
 - Hydro Sound Damper System (HSD) in combination with a double bubble curtain system (1.800 m hose with two-sided air supply and inner ballast chain) – threshold values were met at 50 % of the installations
- The results of the passive acoustic monitoring revealed that no marine mammals remained in the vicinity of the construction site after the deployment of ADDs and AHD [Boethling, BSH].

> Monitoring and Marine mammal database

Following the instructions for the German Navy on the protection of marine mammals and maritime habitats, marine mammal sightings are collected continuously by the German fleet and recorded in a database to improve knowledge about the distribution and habitat use of abundant species. This information is taken into account for the planning of the use of sonar systems during trials [BMVg].

> Active Sonar Risk Mitigation

Within a NATO working group on “Active Sonar Risk Mitigation” the participating nations set up a first analysis and working procedure for developing general guidelines to minimize the risk for marine mammals related to naval maritime activities using active sonar [BMVg].

> Monitoring

As part of a joint project of measuring underwater noise in the German North Sea, the deployment of click detectors (C-PODs) was continued in the area of the research platform FINO 3 to record harbour porpoise activity [BMVg].

2.2 Ship Strike Incidents

Please list all known incidents and provide information separately for each

	Date	Species	Type of Injury	Fatal Injury (Yes/No)	Type of Vessel (length, tonnage, speed)	Location (coordinates)	More Information (name, email)
Incident							
Incident							
Incident							
Incident							
Incident							
Incident							
Incident							
Incident							
Incident							
Incident							

2.3 Major Incidents

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

	Date	Location	Type of Incident	Further Information

Incident				

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.

> Macro Debris

The quantity and quality of marine macro debris found in harbour porpoises were analyzed by evaluating necropsy protocols drafted since 1990. Furthermore, a special focus was put on its documented impacts, such as outer and inner injuries [Unger, Siebert, Herr ITAW].

2.5 Other Forms of Disturbance

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

> Permission offshore constructions

For every project (e.g. pile driving, sand extraction) to be conducted within the Schleswig-Holstein Wadden Sea National Park permissions are required. Approval provisions require that underwater noise is below a harmful level for harbour porpoises and that impacts and disturbances are not significant according to Natura 2000 regulations in 2015 (as in former years) [MELUR].

> Assessment of ship impacts

For the assessment of the potential impact of ship strikes on harbour porpoises in the North and Baltic Seas, marks that could be attributed to ship impacts are assessed conducting necropsies on harbour porpoises. The project is funded by the Ministry of Renewable Energies, Agriculture, Environment and Rural Areas of Schleswig-Holstein (MELUR) [Siebert ITAW].

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.

> Whale Sanctuary

A whale sanctuary with the size of 1.200 km² has been designated in 1999 as part of the Schleswig-Holstein Wadden Sea National Park. It comprises important habitats for harbour porpoises which use the waters west off the islands Sylt and Amrum as a feeding and, especially, as a breeding area.

The National Park is designated as a SAC under the Habitats directive as well as an OSPAR MPA. According to the National Park law, all measures are prohibited that may lead to an unnecessary disturbance of or may have an adverse impact on harbour porpoises. Protection measures see: 1. and 2.5 [MELUR].

> Management Plan for harbour porpoises

Management Plans

The negotiations for the development of national management plans for the 8 designated German Special Areas of Conservation / SACs (pursuant to the Habitats-Directive) including protection measures for harbour porpoises were continued and intensified in 2015 so that a public hearing about the foreseen measures concerning fishery restrictions could be started early in 2016. [BMUB]

The management of fisheries for the protection of harbor porpoises in SAC's can be developed only following the procedures of Article 11 und 18 of the EU-Regulation 1380/2013 on the Common Fisheries Policy. National proposals for such measures have to be presented to the Commission and the other Member States having an interest consisting of either fishing opportunities or a fishery taking place in the area. If the initiating Member State and the other Member States agree on the measures they will be submitted as a "joint recommendation" to the Commission. The Commission shall adopt the measures, taking into account any

available scientific advice, within three months from receipt of a complete request.
In addition, for harbour porpoises, as an Annex IV species of the habitats directive, conservation plans are being developed for the whole German North and Baltic Sea.

3.2 GIS Data

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

> For the Schleswig-Holstein Wadden Sea National Park:

<http://s-h.nokis.org/cadenza/pages/map/default/index.xhtml>

Email: nationalpark@lkn.landsh.de

> Special Areas of Conservation (SACs):

www.HabitatMareNatura2000.de [BfN].

Surveys and Research

4.1 Abundance, Distribution, Population Structure

Overview of Research on Abundance, Distribution and Population Structure

> Acoustic monitoring German Wadden Sea:

Within the framework of the monitoring duties (Bund-Länder-Messprogramm) of the coastal federal states in Germany, 3 C-PODs were deployed throughout the waters of Schleswig-Holstein during 2015 in order to monitor acoustic activities of harbour porpoises in the German Wadden Sea. This work is funded by Schleswig-Holstein's Government-owned Company of Coastal Protection and carried out by ITAW [Baltzer, Siebert, Schaffeld, Stuehrk, Ruser ITAW; Eskildsen, Lages LKN-SH; Czeck NP-LS] .

Two C-POD stations have been operational since 2014 in National Park Wadden Sea of Lower Saxony. The monitoring results can be obtained from the homepage of the National Park Wadden Sea of Lower Saxony [Czeck, NDS-NLPV].

Please follow this link to 'Akustisches Monitoring 2014'

http://www.nationalpark-wattenmeer.de/nds/service/publikationen/1129_schweinswale-im-k%C3%BCstenmeer-gis-daten-und-berichte

> Static Acoustic Monitoring of Harbour Porpoises in the Baltic Sea

With the financial support from the Federal Agency for Nature Conservation (BfN), the German Oceanographic Museum (DMM) is conducting static acoustic monitoring of harbour porpoises using up to 15 C-PODs (porpoise click detectors) in the Baltic Sea (between Fehmarn and Poland). The long-term monitoring has shown seasonal and geographical patterns of harbour porpoises revealing annually migration behaviour [DMM].

Further Information: <http://www.deutsches-meeresmuseum.de/dmm/stiftungdeutschesmeeresmuseum/wissenschaft/schweinswale/forschungsprojekte/monitoring/>

Results can be found under:

Benke, H. et al. 2014: Baltic Sea harbour porpoise populations: Status and conservation needs derived from recent survey results. Marine Ecology Progress Series 495:275-290. <http://www.int-res.com/abstracts/meps/v495/p275-290/>

http://www.bfn.de/0314_monitoringberichte.html

> Visual monitoring:

In the framework of the Natura 2000 monitoring program aerial surveys covering the entire EEZ of the German North Sea, parts of Schleswig-Holstein National Park (specially the whale sanctuary) and the western German Baltic Sea (Kiel Bight, Mecklenburg Bight and Rügen) were conducted between June and August 2015 to assess distribution and density of harbour porpoise. In addition, one dedicated aerial surveys was carried out in the south (Borkum Reef Ground) of the German EEZ in the North Sea in May 2015. These surveys are funded by the BfN [Fais, Viquerat, Herr, Siebert ITAW].

Results can be found under:

http://www.bfn.de/0314_monitoringberichte.html

> In Autumn 2015 the German participation and financial help for the international SCANS III project was decided for 2016/2017 by the German Ministry for the Environment. This project will allow a continuation of the visual monitoring in the North Sea as already started by SCANS I (1994) and continued by Scans II (2005). SCANS is the Acronym, which was created for the first project: "Small Cetacean Abundance in the North Sea and adjacent waters). [BMUB]

> Harbour porpoise (*Phocoena phocoena*) Distribution: North Sea coast, rivers Ems, Jade, Weser, Elbe Data from an opportunistic sighting scheme, © Denise Wenger, GRD/ITAW

In 2015 a total of 58 sighting of harbour porpoises were reported for the Ems (2), Jade (4), Weser (11) and Elbe (13) rivers, the eastern Frisian Islands (5), in the North Sea in direction to Helgoland (13), near Amrum (1), near the island Föhr (1) and along the whole western part of the island Sylt (8). Sightings were opportunistic from sailing boats, motor boats, ferries as well as few kayaks or from land.

Group size: Most frequently single animals were observed, followed by pairs or groups of three. In rare occasions (mostly around Sylt) groups of up to 6 whales were seen during mating and calving time from July to August and one sighting in October (group of 5-6).

In 2015 in the Weser and Elbe rivers most sightings occurred in the river mouths and not in the lower stretches near to the cities Brake or Bremen in the Weser or Wedel and Hamburg in the Elbe as in previous years. Also, nearly no sightings occurred during March, but later. It is suspected that this is due the fact that migration of smelt upstream to their spawning grounds occurred some weeks earlier than usually (already January and February) and that harbour porpoises, following the aggregating and migrating smelt shoals upstream, have not yet been close to the coast.

A total of 6 dead harbour porpoises were reported from the different sides.

Elbe river

In 2015, as in the previous year (2014) after a relatively warm winter period just a few (4) sightings were reported in the Hamburg harbour area during spring time (March to May). The other sightings occurred near to or in the river mouth.

13 sightings were reported along the Elbe river either located near to the river mouth or near the cities of

Wedel and Hamburg.

The first sighting occurred on March 17, a group of 2-3 harbour porpoises was spotted in the Hahnöfer Nebelbe opposite the city Wedel, a known spawning ground of twaite shad.

Weser river

All reported sightings occurred in an area in the outer estuary near Wremen (north of Bremerhaven) or along the Container terminals of Bremerhaven or south of Bremerhaven at Blexen). No sighting was reported from the lower river stretch [GRD/ITAW].

4.2 Technological Developments

New Technological Developments

> No relevant information

4.3 Other Relevant Research

> Marine Mammal Signatures

A study about the detection and classification of marine mammal signatures was continued and finished successfully, with the focus on the improvement of the classification algorithms and processing of signatures in real-time.

The automated estimation of the number of individual sperm whales from acoustic recordings was investigated, using clustering and grouping techniques of the click signatures. It was finished successfully and will be continued looking at other species.

For the use within the German Navy new acoustic data of marine mammals were analysed to use them for risk mitigation purposes (detection, classification).

A pilot study about the detection probability of harbour porpoises at the surface, using automated image processing algorithms from data of a mounted digital video camera at the research platform FINO 3, was continued and finished.

The investigation on the possible use of random sightings for improving models on the prediction of marine mammal abundance was initiated in a study [BMVg].

> Stranding networks

In Schleswig-Holstein all stranded cetaceans from the North and Baltic Seas are collected through the local stranding network. Necropsies are conducted to assess the health status and to identify anthropogenic effects on cetaceans in the North and Baltic Seas funded by the Ministry of Renewable Energies, Agriculture, Environment and Rural Areas of Schleswig-Holstein (MELUR). In addition, reproduction biology, age, genetic structure and feeding ecology are studied [Wehrmeister, Lakemeyer, Reckendorf, Grilo, Siebert ITAW].

> In Lower Saxony the collection of information about harbour porpoises found dead was also continued 2015. The number of harbour porpoises found dead at the coast of Lower Saxony amounts to 56 carcasses in 2015. Additional one white-beaked dolphin (*Lagenorhynchus albirostris*) was found dead at the coast of the island of Borkum in 12/2015. The data about harbour porpoises found dead since 1983 can be obtained from the link given in 4.1 [NP-LS].

> In Mecklenburg – West Pomerania (MV) the stranding networks also continued in 2015 and a total of 44 dead harbour porpoises were found at the coasts of MV [DMM].

> Stable Isotopes

With the financial support of the Ostseeforschungsstiftung, the German Oceanographic Museum is conducting a study to determine food preference, migration patterns and calving grounds of harbour porpoises in the German Baltic Sea on the basis of stable isotopes. The project started on the 1st of May 2015. So far 5 different site samples have been taken (invertebrates and different fish species) as well as tissue and stomach content samples taken during necropsies carried out of stranded animals [DMM].

> Development of marine mammal health and ecology in different climate conditions

With the financial support of the Volkswagen Foundation, the Institute for Terrestrial and Aquatic Wildlife Research of the University of Veterinary Medicine Hannover, the German Oceanographic Museum in Stralsund, the Zoological Institute and the Zoological Museum of Hamburg University, the Zoological Institute and Museum at the University of Kiel, Hildesheim University and the National History Museum in Denmark and the Swedish Museum of Natural History are involved in this cooperative project.

Specifically, bone density and bone structure in preparations spanning several decades of harbour porpoises, harbour seals and grey seals will be compared, and bones will be examined for trace elements and heavy metals such as mercury, lead and selenium. In addition, changes in the food spectrum will be analysed and

searched for stress markers to see whether environmental conditions have changed over time. It is also foreseen to detect viruses and to categorize parasites within the framework of the project. Aim of the project is to work out parameters suitable for assessing the health of the marine mammals over an extended time period [DMM].

Use of Bycatches and Strandings

Post-Mortem Research Schemes

5.1 Contact Details

Contact details of research institutions and focal point

> Lower Saxony (LS): National Park Authority, LAVES-Institute for Fish & Fishery Products Cuxhaven (only district of Cuxhaven)

> Schleswig-Holstein (SH): Terrestrial and Aquatic Wildlife Research (ITAW) of the University of Veterinary Medicine Hannover (TiHo), Foundation, Werftstr. 6, D-25761 Büsum

> Mecklenburg – West Pomerania (MV): German Oceanographic Museum, Katharinenberg 14-20, D-18439 Stralsund

(sichtungen@meeresmuseum.de)

Phone: +49 (0)3831 2650 333

Fax: +49 (0)3837 2650 209

5.2 Methodology

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

> SH: Measurements were taken in metric system. Necropsies were conducted on porpoises from the Baltic and North Sea.

> MV: Basic biological and anatomical data were collected and registered. Necropsy was performed occasionally.

> LS: Metric measurements of carcasses in Lower Saxony (District of Cuxhaven) were taken.

5.3 Samples

Collection of samples (type, preservation method)

> MV: Pathological samples will be collected and examined during necropsy if required.

> SH: Pathological samples were partly taken on porpoises from the Baltic and North Seas

> LS: Due to advanced decomposition of the carcasses no samples could be taken in 2015. Further 2 deep frozen carcasses will be dissected and sampled in 2016 together with Prof. Dr. Ursula Siebert, Institute for Terrestrial and Aquatic Wildlife Research (ITAW), University of Veterinary Medicine Hannover

5.4 Database

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

> SH: MySql, Postgresql, Access, Excel

Between 1990 and 2015 the following number of data sets has been collected per species (data recorded until 07.01.16):

Phocoena phocoena: 3.617

Delphinus delphis: 8

Lagenorhynchus albirostris: 26

Lagenorhynchus acutus: 2

Stenella coeruleoalba: 1

Delphinapterus leucas: 1

Delphinapterus ampullatus: 1

Physeter macrocephalus: 7

Balaenoptera acutorostrata: 7

Balaenoptera physalus: 6

Globicephala melas: 3

Tursiops truncatus: 1

Mesoplodon bidens: 1

> MV: In 2015 44 dead harbour porpoises were found at the coasts of MV.

> LS: The number of dead animals in the district of Cuxhaven amounted to 4 carcasses; one carcass reached the IFF from the Jade-Weser district (total 5 carcasses). Metric data from 2 carcasses were collected and registered in the IFF Cuxhaven. Due to severe decay of one carcass no data could be collected. The further 2 carcasses were deep frozen and will be dissected in 2016 together with the ITAW.

5.5 Additional Information

Additional information (e.g. website addresses, intellectual property rights, possibility of a central database)
 > MV: The German Oceanographic Museum is collecting information about incidental strandings and sightings (see at <http://www.deutsches-meeressmuseum.de/dmm/stiftungdeutschesmeeressmuseum/wissenschaft/schweinswale/sichtungen/sichtungsmelden/>)

Activities and Results

5.6 Necropsies

Number of necropsies carried out in the reporting period

	Number	Recorded cause of death
<i>Phocoena phocoena</i>		MV: 23 necropsies in 2015. Recorded strandings can only partially be necropsied. Part of the dissections will be performed in 2016; recorded cause of death: drowning, bycatch, parasitic diseases, bacterial infections, pneumonia, dystocia SH: Necropsies were carried out on 97 harbour porpoises from the Baltic Sea and on 87 harbour porpoises from the North Sea. For three animals it was not possible to determine the origin. LS: Due to severe decomposition of three carcasses found in the District of Cuxhaven no necropsy examinations could be performed. Only from two carcasses metric measurements could be taken. The further 2, deep freezed carcasses will be dissected in 2016.
<i>Tursiops truncatus</i>		
<i>Delphinus delphis</i>		
<i>Stenella coeruleoalba</i>		
<i>Grampus griseus</i>		
<i>Globicephala melas</i>		
<i>Globicephala macrorhynchus</i>		
<i>Lagenorhynchus albirostris</i>		
<i>Lagenorhynchus acutus</i>		
<i>Orcinus orca</i>		
<i>Hyperoodon ampullatus</i>		
<i>Mesoplodon bidens</i>		
<i>Kogia breviceps</i>		
Other (please specify under number)		LS: One sperm whale was found dead in the North Sea and was brought to Cuxhaven for disposal. The cause of death could not be recorded due to severe decomposition of the animal.
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		

5.7 Other Relevant Information

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

> In the case of the sperm whale the body weight reached 10 t with a length of nearly 13 m (at this length the body weight is normally 25 - 30 tons), this could indicate the severe decomposition of the animal or a bad nutritional condition [LAVES].

Relevant New Legislation, Regulations and Guidelines

6.1 New Legislation, Regulations and Guidelines

Please provide any relevant information

> No changes

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.

> Fishing for litter

The youth organization of NABU conducted an action week (19.09. - 03.10.2015) to collect marine litter on the beaches.

> Information Panels

At the island of Sylt in close vicinity to the whale sanctuary panels with information on harbour porpoises, their ecology and the sanctuary are under construction (first panels installed at the end of 2015, ongoing in 2016, contact: Kundy National Park Administration) [MELUR].

> Incidental Sightings Project

The German Oceanographic Museum is responsible for the “sailor on the lookout for harbour porpoises” project. This project includes registration of sightings of harbour porpoises and the findings of dead porpoises. Through the webpage of the museum and on our flyers on the projects we provide information on sightings of porpoises and dead animals and explain what people should do if they encounter a porpoise or find one dead. It is possible to contact DMM by App OstSeeTiere, post, email or telephone [DMM].

([http://www.deutsches-](http://www.deutsches-meeresmuseum.de/dmm/stiftungdeutschesmeeresmuseum/wissenschaft/schweinswale/sichtungen/)

[meeresmuseum.de/dmm/stiftungdeutschesmeeresmuseum/wissenschaft/schweinswale/sichtungen/](http://www.deutsches-meeresmuseum.de/dmm/stiftungdeutschesmeeresmuseum/wissenschaft/schweinswale/sichtungen/)

> “Plastic School”

Oceanographic Museum Stralsund together with the The Leibniz Institute for Baltic Sea Research, Warnemünde and the Ministry for education of the federal state Mecklenburg West Pomerania launched the project “plastic school” in September 2015. The project (18month) seeks to develop education material for schools regarding marine litter [DMM].

> WDC Kids website

Kids website: WDC runs a dedicated website for school children. It offers information about the world of whales and dolphins, activities and fun stuff. Surfing around the WDC-Kids website children can learn more about cetaceans, their habitat and the threats they face, they can play around or get active and take a step forward for the protection of whales and dolphins [WDC].

<http://www.wdcs.org/wdcskids/de/kids-wdc-in-action-page.php?c=hp>

> “Walheimat”

Public outreach campaign „Walheimat“ in Germany: In 2012 a broad public outreach campaign was launched in Germany. Since then, the many activities of the WDC team - like participation in expert rounds, symposia and conferences, writing expert opinions, dialogue with stakeholders and decision makers, etc. - have been communicated through its website, and through other channels [WDC].

<http://de.whales.org/kampagnen/walheimat-sichere-schutzgebiete-jetzt>

> „Die letzten 300“

Exhibition „Die letzten 300“ in collaboration with NGOs NABU, OceanCare as well as ASCOBANS: From the creative competition described in the previous report a public exhibition evolved which displayed the many works that were received through the competition. The exhibition was successfully displayed at the German Oceanographic Museum in Stralsund from January through April 2015 and was visited by an estimated 30,000 people.

Germany (BMUB) invited the ASCOBANS Jastarnija Group for their 11th Meeting (10.-12.3.2015) to Stralsund, so that an international attendance and appreciation of this exhibition by representatives of Baltic harbour porpoise conservation was made possible.

The Federal Minister for the Environment, Dr. Barbara Hendricks, is the patron of the exhibition. She supported this campaign by taking part in the appreciation of the works created for the said competition (cf. previous report and the publication in BMUB “ Umwelt” 9/2014) and by her visit of the German Oceanographic Museum in Stralsund in summer 2015, where she dedicated special attention to the highly endangered conservation status of the Baltic harbour porpoise. [BMUB]

<http://schweinswal.eu/die-ausstellung/>

A Leaflet on harbour porpoise protection was produced in conjunction with the exhibition mentioned above, to inform people about what they can do personally to save the harbour porpoise [WDC].

Possible difficulties encountered in implementing the Agreement

Difficulties in Implementing the Agreement

Please provide any relevant information

> No difficulties encountered