Agenda Item 4 — Annual National Reports 2008

Document 54

Reports received from Germany
a) Annual National Report
b) Stranding Questionnaire

Action Requested

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

Submitted by — Germany

ASCOBANS Annual National Report

A. General information

Federal Republic of Germany *Name of party*	**1 January - 31 December 2008** *Period covered*
Stefan Bräger on behalf of BMU *Name of report compiler*	**30 March 2009** *Date of report*
Any changes in coordinating authority, appointed member of advisory committee	

B. NEW measures/action towards meeting the resolutions of the Meeting of Parties

1. Direct interaction of small cetaceans with fisheries

The project conducted by the Research and Technology Centre (Büsum) on potential impacts of sound on ears of harbour porpoises using special histo-pathological methods was continued. [U. SIEBERT]

Investigations of methods to reduce by-catch

Implementation of methods to reduce by-catch

Please see relevant working documents submitted by Germany and the Netherlands aiming to quantify the bycatch of harbour porpoises in the German Baltic Sea.

Estimates of by-catch in set net and pelagic trawl fisheries

Species	Estimated number of by-caught animals	Area (ICES area or more detailed)	Notes (type of fishery, effort, seasonal variations, etc.)

2. Reduction of disturbance to small cetaceans

NGOs (NABU, GRD, GSM) highlighted the risk of foreseen ammunition detonations for harbour purpoises at the Baltic sea coast close to Schleswig Holstein and asked the responsible authorities for avoidance or at least comprehensive mitigation measures to substantially reduce the risks for cetaceans. In this context the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) initiated the contact between the responsible State Ministry for the Interior of Schleswig-Holstein and its respective service ("Kampfmittelräumdienst") and marine experts of the Federal Agency for Nature Protection (BfN Vilm) to help mitigate the impact of underwater explosions of ammunition in Kiel Bight. Due to the constant support of NGOs, which organized a specific symposium on ammunition removal, these efforts finally reached a successful testing of so-called bubble curtains to reduce the emitted sound pressure levels. [O. SCHALL]

Responding to an initiative of three German non-governmental organisations (NABU, GRD, GSM) to reduce the impact of ammunition removal on marine mammals, the Federal Armed Forces Underwater Acoustics and Marine Geophysics Research Institute (FWG) investigated means of reducing the shock wave of underwater detonations. Using a double bubble curtain, in test detonations (of 1 kg charges) a noise reduction by 14 to 18 dB was achieved. This could reduce the area of impact by up to 98 %. [S. KOSCHINSKI]

A research project funded by the Federal Agency for Shipping and Hydrography (BSH) has started to investigate effects of the construction noise in the first German Offshore test-field for windfarms “Alpha Ventus” close to Borkum Reef, Germany. Visual surveys by airplane and ship as well as acoustic surveys with a towed hydrophone and stationary acoustic monitoring using C-PODs are carried out. [U. SIEBERT]

Concerns exist in Lower Saxony regarding the disturbance due to heavy dredging for harbour constructions in the estuary of the river Elbe. [R. CZECK]

Information on levels of disturbance
(e.g. seismic surveys, new high-speed ferry routes, studies about acoustic impacts on cetaceans, etc.)

OSPAR (BDC /EIHA) is presently working on a modular "Comprehensive overview of the impacts of anthropogenic underwater noise in the marine environment" (Paper BDC 09/16/12-E draft). Module 7 focuses on "seismic surveys". The potential mitigation measures described there would be considered already in an approval procedure by LBEG if there would be a project; but the latter was not the case in 2008. [M. FRICKE]

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 by the German fleet and recorded in a data base to improve knowledge about the distribution and habitat use of abundant species and take into account the information for further planning of trials. [S. LUDWIG]

The Federal Republic of Germany (BMU) initiated and helped to table the draft resolution on “Adverse Anthropogenic Marine/Ocean Noise Impacts on Cetaceans and Other Biota” adopted as UNEP/CMS/Resolution 9.19 at the ninth Conference of Parties. [O. SCHALL]

Implementation of guidelines, new legislation, etc. to reduce disturbance

3. Protected areas for small cetaceans

In spring 2008 the first two monitoring surveys covering the waters of the Lower Saxonian coastal zone were carried out by using a standard line-transect-method. The results showed a higher concentration of harbour porpoises in the western part of this area than in the eastern part. In April 2008, a concentration of about 1 animal/km² was detected between Borkum and Langeoog and a concentration of about 0,34 aminals/km² was found in the eastern part. The monitoring results are published on the internet, see "Monitoringergebnisse" at http://www.nationalparkwattenmeer.niedersachsen.de/master/C43559691_N28553490_L20_D0_I5912119.html. It is planned to continue this monitoring. Caused by the high sediment loading there are difficulties to find the appropriate number in the big estuaries as shown by the high number of carcasses found in the Elbe estuary (eastern part of LS wadden sea) and the low level of sightings in this region. [R. CZECK]

Measures taken to identify, implement and manage protected areas

4. Further research on small cetaceans

The stranding network for cetaceans along the German coasts of the North and Baltic Seas operated routinely to its full extent. Necropsies of all stranded and by-caught cetaceans were carried out as usual by the Research and Technology Centre (Büsum), the Veterinary Institute for Fish and Fishery Products (Cuxhaven) and the German Oceanographic Museum (Stralsund). The German Oceanographic Museum collaborated also with the State Veterinary Agency of Mecklenburg-Vorpommern (Rostock). Projects of the Research and Technology Centre (Büsum) to investigate the genetic structure of parasites from the respiratory tract of harbour porpoises were continued. [U. SIEBERT]

The collecting of information on incidental strandings and sightings-by-chance is continued (see http://www.nationalparkwattenmeer.niedersachsen.de/master/C43559691_N28553490_L20_D0_I5912119.html). Pathological investigations were limited by decay of most of the stranded animals. [R. CZECK]

Implementation of schemes to use and gain information from stranded cetaceans

In 2008, a total of 12 days of aerial surveys were conducted by the Research and Technology Centre (Büsum). In the south-western Baltic Sea, surveys were conducted in February and June 2008. In the North Sea, surveys were conducted in the 12sm zone of Lower-Saxony in April and May 2008, in the area of Sylt Outer Reef in July/August 2008 and in the area of the offshore test field “alpha ventus” in August and September 2008. Findings from previous survey years such as very high densities around Sylt Outer Reef and increasing densities in the southern part of the German Bight were confirmed. In the Baltic Sea, high

densities were detected in the northern part of Kiel Bight and around the island of Fehmarn. [U. SIEBERT]

For a possible military sonar test area in the Bay of Biscay, a detailed study concerning the abundance and habitat use of marine mammals including data of a prediction model and other biotic parameters (e.g. food resources) was carried out. New data for the German marine mammal data base (containing sightings, strandings, worldwide maps of occurrence and characteristics of 126 species) were integrated. In total, about 5000 systematic sightings, 3000 random sightings and 3500 stranding records from the German Baltic and North Sea areas were implemented, collected by national scientific institutes. Furthermore, sighting records from free available data bases were also added. Data about the occurrence and characteristics of 40 squid species, the most important food source for beaked whales, were generated. Information about existing and applied marine protected areas in national and international waters were collected, including 32 countries and mainly focussed on European waters. Within the data base, data of the relative environmental suitability (RES) model that includes seasonal predictions of habitat suitability, densities and uncertainties of marine mammal species, was extended with 10 toothed whale species: common dolphin (*Delphinus delphis*), striped dolphin (*Stenella coeruleoalba*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), white-beaked dolphin (*Lagenorhynchus albirostris*), long-finned pilot whale (*Globicephala melas*), Rissos dolphin (*Grampus griseus*), killer whale (*Orcinus orca*), bottlenose dolphin (*Tursiops truncatus*), harbour porpoise (*Phocoena phocoena*) and sperm whale (*Physeter macrocephalus*). A new rapid response audiometry system for measuring the hearing ability of marine mammals, using the AEP method (Auditory Evoked Potential), was calibrated and tested on harbour porpoises in captivity. The system is used on captive and life-stranded animals to investigate potential influences of noise exposure on the hearing abilities. [S. LUDWIG]

Four research projects by the environmental consultancy 'BioConsult SH' aimed to investigate the impacts of offshore wind farms, pile-driving, and sand extraction on harbour porpoises. In 2005 and 2006, the impact of operating wind turbines was studied in two Danish wind parks with the use of static acoustic monitoring (T-PODs). The effect of pile-driving was studied in the German offshore test area "alpha ventus" and at the Danish wind farm "Horns Rev II" again using static acoustic monitoring. Pile-driving clearly had an impact on porpoise acoustic activity. It appeared that harbour porpoises completely left the area next to the construction site for a medium time of 16.6 hours after pile-driving. The impact of sand extraction on harbour porpoises was assessed with aerial surveys and static acoustic monitoring. Passive acoustic monitoring devices revealed a short term avoidance of the vicinity of the dredging ship by porpoises, possibly due to acoustic disturbance, which lasted about four hours. [A. DIEDERICHS]

Research on abundance, population structure etc.

Research on the effects of pollutants on cetacean health

5. Public awareness and education

An informational leaflet about the harbour porpoise has reached the state of conceptual design and will probably be published in 2009. [R. CZECK]

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) / O.Schall published two articles entitled "Protection of Small Cetaceans in the Northeast Atlantic: Extension of the ASCOBANS Agreement in Force" (*BMU Umwelt* 4/2008: 198; in German) and "Progress and Deficiencies in the Conservation of Small Cetaceans" (*BMU Umwelt* 6/2008: 320.322; in German) summarizing the results of AC-15.
The Federal Republic of Germany (BMU) has agreed to support the work of ASCOBANS in 2008 with a voluntary contribution of €25,600. Furthermore, it funded the part-time position of S. Bräger to work as chair of the Advisory Committee and additionally financed travel costs of Cetacean experts. [O. SCHALL]

Following the annual tradition since 2002, the GSM has again approached 450 sailing clubs marinas and campgrounds as well as several yachting magazines to raise awareness for its project "Sailors on the lookout for harbour porpoises". The media feedback is still very good, and the dissemination of the request for sightings is widespread (http://www.habitatmare.de/de/schweinswalsichtungen1m.php). [P. DEIMER]

Measures taken in the fields of public awareness and education to implement or promote the Agreement

Questionnaire 2008
on post mortem research schemes within the ASCOBANS Agreement area

Name and address of reporting institution **(3 coastal states in alphabetical order)**	**Mecklenburg-Prepommerania (MV):** German Oceanographic Museum (DMM), Katharineberg 14-20, D-18439 Stralsund **Lower Saxony (Nds):** LAVES-Institute for Fish & Fishery Products Schleusenstr. 1, D 27472 Cuxhaven **Schleswig-Holstein (SH):** Forschungs- und Technologiezentrum Westküste (FTZ), Werftstr. 6, 25761 Büsum
Name of respondent	**MV:** Klaus Harder & Michael Dähne **Nds:** Dr. Michael Stede & Dr. Sven Ramdohr **SH:** PD Dr. Ursula Siebert
What data are recorded routinely?	**MV:** Date, location, length, sex, weight, pregnancy, netmarks, net type (only by-catch, as stated by fishermen), condition of carcass, finder (address and telephone nr.), notes **Nds:** Basic biological and anatomical/pathological data **SH:** Species, location of finding, date of finding, circumstances, finder, by-catch/stranding/life stranding, state of preservation, estimated age, frozen before necropsy or dissected freshly
Description of methods and units of measure-ment used	**MV:** Kuiken, T. & Hartmann, M. G. (1993): Dissection techniques and tissue sampling. Proceedings of the ECS Workshop, Leiden 39pp. **Nds:** External measures regarding: cm, g, kg (metric cgs-system) **SH:** Post mortem examinations were performed according to the Proceedings of the First ECS Workshop on Cetacean Pathology (Kuiken and Hartmann, 1993, Siebert et al. 2001). Measurements were taken in metric system.
List of tissue samples usually taken	**MV:** Cranium, genetic sample, liver, blubber, muscle tissue, ostentatious tissues of organs or whole organs, if applicable foetal tissues or whole foetus is conserved **Nds:** Blubber, Liver, kidney. According to pathological findings: bacteriological and parasitological organ samples: Skeleton in the Museum Oldenburg **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.
How are the samples preserved?	**MV:** Samples are frozen or fixed in formalin/ethanol solution **Nds:** Deep frozen (-20°C; - 80°C) **SH:** Formalin, alcohol, other special fixation, frozen at –20-30°C or 70-80°C, OCT etc.
How are carcasses disposed of?	**MV:** Rendering plant **Nds:** Officially in a rendering plant **SH:** Incineration
Are data recorded in a computer database? Please describe	**MV:** Double system: MS-Excel tables (2000 - 2008) for harbour porpoises and seals and MS-Access database (1960-2008) only for harbour porpoises, filemaker database (1950-2000, only seals) **Nds:** no **SH:** Data base on important biological parameters of harbour porpoises from the German North an Baltic Sea (e.g. morphometrics, genetics, chemical analyses, stomach content, age, reproductive data, pathological data)
How many data sets (by species) do you have?	**MV:** Appr. 400 (harbour porpoises), several hundred (seals) **SH:** Between 1990 and 2008 the following number of data sets has been collected per species: *Phocoena phocoena*: 2385 *Delphinus delphis*: 5 *Lagenorhynchus albirostris*: 25

	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
Which computer software is used?	**MV:** Excel, MS Access, Filemaker **SH:** MySql, Postgresql, Access, Excel
Do you foresee any problems (e.g. regarding intellectual property rights etc.) related to a central database?	**MV:** If it is clearly defined, that anyone who uses the data has to consult regarding intellectual property rights with the owners of the data, then everything should be fine. **SH:** Data should be put in an international data base after publication. Use and interpretation of data sets should be restricted
What advantages would you expect from a central database?	**MV:** A centralised data acquisition and processing will solve a number of issues regarding stranding networks – and it will enable researcher to react timely to emerging problems like virus infections or unusual events etc. **SH:** Exchange and comparison of all data collected in different countries. This will give a more precise picture of the different subpopulations of harbour porpoise.
Additional Information (e.g. website addresses)	**MV:** http://www.meeresmuseum.de **Nds:** Poststelle.IFF-CUX@laves.niedersachsen.de **SH:** Would be useful

MV = Mecklenburg-Vorpommern
Nds = Niedersachsen
SH= Schleswig-Holstein