

Sixteenth Compilation of Annual National Reports to ASCOBANS

2011



Agreement on the Conservation of Small Cetaceans of the Baltic,
North East Atlantic, Irish and North Seas

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GENERAL INFORMATION

SUMMARY OF PARTY DETAILS

Party	Period covered	Date of Report	Submitted by	Function
BELGIUM	2011	20.02.2012	Jan Haelters; contributions provided by: Francis Kerckhof, Bob Rumes, Jochen Depestele, Thierry Jauniaux, Sigrid Maebe, Sophie Mirgaux, Eric Stienen, Jeremy Demey, Dominique Verbelen, Jean-François Verhegghen, Frank Wagemans	
DENMARK	2011	14.03.2012	Magnus Wahlberg, Ph. D.	Chief Scientist
FINLAND	2011	12.3.2012	Penina Blankett	Ministerial Adviser
FRANCE	2011	March 2012	Hassani Sami	Delegate
GERMANY	2011	15.03.2012	Oliver Schall	National Focal Point of ASCOBANS
LITHUANIA	2011	12.04.2012	Miglė Simanavičienė	Nature Protection Department, Biodiversity Division, Chief Desk Officer
NETHERLANDS	2011	13.03.2012	Meike Scheidat, Martine van den Heuvel Greve	Researcher
POLAND	2011	15.02.2012	Monika Lesz	National Focal Point for ASCOBANS Agreement
SWEDEN	2011	08.06.2012	Erland Lettevall and Susanne Viker	National delegates
UNITED KINGDOM	2011	15.03.2012	James Gray	UK ASCOBANS Coordinator

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SWEDEN
UNITED KINGDOM

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**NEW MEASURES / ACTIONS TOWARDS MEETING THE OBJECTIVES OF THE
 CONSERVATION AND MANAGEMENT PLAN AND THE RESOLUTIONS OF THE
 MEETING OF PARTIES**

A. HABITAT CONSERVATION AND MANAGEMENT

1 DIRECT INTERACTION WITH FISHERIES

1.1 Investigations of methods to reduce bycatch

BELGIUM

Investigations of methods to reduce bycatch WAKO II

The project 'WAKO II', funded by the Belgian Science Policy, finished in 2011. The following conclusions were made: There is widespread agreement on the critiques to the Common Fisheries Policy (CFP) and fishing impacts on the marine ecosystem. Aspirations for a better protection of marine ecosystems are now formally set out in the Marine Strategy Framework Directive and are underway through the reform of the CFP (COM, 2011:425). Belgian marine fisheries are dominated by beam trawling, a fishing method which experiences considerable pressure from the latest EU legislation as it is clearly questioned for its ecological effects. Passive fisheries, such as trammel net fisheries, can be an alternative for beam trawling targeting flatfish.

WAKO-II aimed at making progress in developing an integrated assessment tool, which can scientifically underpin policies that reconcile the interests of both the marine environment and fisheries. To be effective in the CFP, such a tool should be at the level of the fisheries management unit. Metiers can be a practical unit for management, which is why the project studied the two Belgian fishing metiers. The effects investigated were short-term and direct, as these are more easily related to a specific fishing métier and as the focus was a relative comparison of effects of these métiers in order to guide managers on the potential of managing fishing gears to achieve ecosystem-based management objectives. The selected short-term effects were (1) endofaunal mortality from passage of a fishing gear (tow path mortality), mortality from the catching process for (2) epifauna and (3) commercial fish species, (4) seabirds interactions and (5) marine mammals bycatch. Seabird and marine mammal bycatch was investigated through a number of approaches (strandings data, questionnaires, independent observers and fishermen cooperation) and suggests a potential danger for diving seabirds and harbour porpoises.

More efforts are needed though to get a clearer picture here and our positive experiences

with fishermen's cooperation could be an important basis. Contact person: Jochen Depestele: Jochen.Depestele@ilvo.vlaanderen.be
DENMARK
The Danish National Institute for Aquatic Resources conducted research on the effects of alerting signals on harbour porpoises at Reersø, Denmark. However, the signals employed did not elicit any response from the porpoises.
FINLAND
During the observation scheme 2006-2007 no bycatches were detected or porpoises sighted by the observers.
FRANCE
A programme named INPECMAM has been funded and agreed between the fishermen, the Iroise sea MPA, University of Brest, the National Natural History Museum and Oceanopolis to work on the by-catch of marine mammals (cetaceans and seals) and the depredation in set net fishery in the Iroise sea. A new pilot study in Eastern Channel and Southern North Sea was conducted in accordance with EC regulation 812/2004. One acoustic deterrent model (DDD03) was tested in this study, included in the project named FilManCet and managed by the fishing industry in collaboration with scientists of OCEAMM. The experiments took place from April-June 2010. Fifteen hauls were observed at depth from 5-20m. No bycatch was observed in either equipped nets or standard nets, set 6km apart from each other.
GERMANY
Three vessels <12m from the fishing port Freest were equipped with video cameras in order to monitor by-catch in a fishery east of the island of Rügen. [Kock, vTI]
LITHUANIA
There is no any investigation for reducing of bycatch
NETHERLANDS
In 2011 the Coastal & Marine Union (EUCC) continued its study on bycatch mitigation within a new project funded by the European Fisheries Fund: "bycatch mitigation harbour porpoise". The main aim is to mitigate bycatch of harbour porpoises in the winter set net fishery on cod, turbot and brill in collaboration with the industry. The workability and efficiency of a new pinger (Bananapinger Fishtek UK) and a DDD acoustic device are investigated using both field trials and a behavioural study on a porpoise in captivity at research facility SEAMARCO. The project also aims to: monitor bycatch, facilitate the landing of bycaught porpoises, exchange knowledge, conduct parallel pinger trials and to explore innovative methods to reduce bycatch. The project is a close collaboration between the Dutch Fisheries Organisation (Nederlandse Vissersbond), the Expert group on set net fishery (Kenniskring Staand want), ten Dutch winter season set net fishermen and the Coastal & Marine Union. The project is funded by the Dutch Ministry of Economics, Agriculture and Innovation (EL&I) and the European Fisheries fund (EFF). In order to study the effect of the acoustic deterrents porpoise detectors have been installed on the nets in 2011 in cooperation with IMARES and this will continue in 2012. Preliminary results indicate that the mooring of c-pods can be carried out by set gill net fishermen. However, the data collected during this study in terms of the number of simultaneous days of c-pods with – and without pingers, were not sufficient to draw

conclusions on possible behaviour of avoidance – or attraction – by porpoises in the vicinity of pingers.

In December 2011 a seminar “Fish traps in the North Sea - a viable option?” was organised. This seminar was an initiative of ILVO Fisheries and Marine Science & Communication and was facilitated and financed by the Fisheries Knowledge Groups of LEI and IMARES, part of Wageningen UR (University & Research centre). The purpose of this one-day seminar was to exchange information regarding the use of fish traps as alternative fishing gear to prevent porpoise bycatch. A variety of experts from all over Europe (Sweden, France, Germany, UK and Belgium) shared their practical experiences and gave fishermen the opportunity to learn more about this fishing technique. There were about 50 attendees. A report of the seminar and more information can be found at:

http://www.kenniskringvisserij.wur.nl/NL/nieuwsagenda/nieuws/Viskooien_kunnen_duurzame_vis_verbinden_met_duurzame_energie.html

POLAND

In December 2011, in the Puck Bay, the project on “Active Protection of Harbour Porpoises against Bycatch” was terminated. At the line connecting Gdynia and Hel harbours, a linear barrier was constructed equipped with pingers to stop the porpoises from entering the area where there is a high density of bottom gillnets and an anchored surface gillnet (GNS)

The project was carried out by the Hel Marine Station of the IOUG, financed by the National Fund for Environmental Protection and Water Management and by the University of Gdańsk. Before launching the project the area has been monitored for the distribution of fishermen gear and by use of POD gear for the harbour porpoises presence.

The project implementers provide following information:

(1) The Puck Bay is an important area for traditional boat fishing where anchored bottom gillnets are broadly used. The total number of fishermen gear used (counted on the basis of fishermen navigation marking) and its distribution was changeable during the year in dependence of fishing conditions from none when the bay is covered by ice to 1200 in the autumn season.

(2) The use of passive hydroacoustic monitoring during the project with the use of POD (Porpoise Detector) on the line Hel – Gdynia allowed to register numerous sound impulses generated by porpoises. In the data base of the project during 1156 days of its duration 98 PPD (Positive Porpoise Day) was recorded including 854 PPM (Positive Porpoise Minutes) and 2746 Click Trains. Most of hydroacoustic recordings was made during the winter and spring season.

(3) The experimental use of pingers demonstrated that they prove to be more effective in the Puck Bay when installed on the sea bottom rather than on the fishermen gear. The acoustic signal emitted by pingers effectively stopped porpoises against entering the areas of intensive use of gillnets in the bay.

The same unit started pilot project with the aim to test in the Puck Bay the use of traps “Cod-pot” type as the alternative for gillnets in the cod fishing.

SWEDEN

Studies investigating alternative fishing gear such as cod pots and traps for species like pike-perch and herring have been carried out by the Swedish Board of Fisheries (SBF). Since July 2011 this research is conducted by the Department of Aquatic Resources of the Swedish University of Agricultural Sciences (SLU). During 2009–2010 the SBF studied cod pots as an alternative to the gillnet fisheries for cod in the Baltic Proper and the results are promising. In 2011 new designs of pots has been developed by several fishing gear manufacturers in collaboration with the SLU. These pots were in 2011 tested in an

implementation project involving several fishermen as well as in a project conducted by the SLU. The test will continue in 2012.

A Swedish fishing gear company has planned a project with funding for the next year to develop a full-scale cod pot fishing method. The project mainly focuses on how to improve the construction of the pot as well solutions for better handling of the pots on board. The outcome of this project may be of interest to evaluate in terms of bycatch reduction as well as consequences for the fisheries.

UNITED KINGDOM

The two main species affected by fishing in UK waters are the harbour porpoise and the short-beaked common dolphin. All Reports to the European Commission on activities conducted by the UK under Regulation 812/2004, and under Article 12(4) of the Habitats Directive, provide details of the monitoring work undertaken and estimates of bycatch.

A dedicated monitoring scheme is operated by the SMRU, while collaborative links with the three fishery research laboratories in the UK also allow selected observations from the Discard Sampling Programmes to be included in our assessment of cetacean bycatch. The observer scheme relies upon good collaborative links with industry. Nevertheless fisheries regulations were enacted in England and Scotland to ensure that there is also a legal obligation for skippers and owners to take observers when asked to do so.

The principle area of concern for cetacean bycatch remains the south-western waters of the Western Channel and Celtic Sea. The situation in the North Sea remains unclear as only limited monitoring has been done since the late 1990s. Monitoring is now being focused on these two areas and as sufficient data is compiled, more robust estimates of current bycatch rates will become available.

The UK is now undertaking more limited monitoring in its pelagic trawl fleets, except where cetacean bycatch is known to be a concern, or where there is insufficient information to form an assessment of likely bycatch rates. Most sampling effort is now directed at under 15m vessels using static gears in subareas VII and IV. Monitoring the efficacy of pingers in the over 12m gillnet fleet also continues, following a successful industry/science collaborative trial of DDD pingers that was completed in 2011.

Reports can be found at:

<http://ww2.defra.gov.uk/environment/marine/protect/species/cetaceans/>

Details of our mitigation work are included below

1.2 Implementation of methods to reduce bycatch
BELGIUM
none
DENMARK
FINLAND
FRANCE
Modification of practices in pelagic trawling (headline at 5 m depth)

GERMANY
Pingers in vessels >12 m length according to EU Regulation 812/2004. [Kock, vTI]
LITHUANIA
There is no any implementation of methods for reducing of bycatch
NETHERLANDS
POLAND
<p>In December 2011 a one-year pilot project “Ghost nets retrieval from the Baltic Sea” was terminated. It was financed by the Baltic Sea 2020 foundation and carried out by WWF Poland in co-operation with experts from the Marine Academy in Szczecin, Marine Institute in Gdańsk and Marine Fishing Inspectorate in Szczecin as well as with fishermen and professional divers. In the course of project the amount of ghost nets on ship wrecks within the Polish marine zone was estimated at 150–450 tons and the number of nets lost in Baltic in 2005-2008 was estimated at 5500–10 000 pieces. Research shows that lost nets keep their fishing capacities up to 20 percent during the first three months and up to 6 percent after 27 months. Fishing capacity of ghost nets lost in the Baltic was estimated at 20,8 tons during 27 months. In the course of project more than 4 tons of ghost nets from the sea bottom and 1,8 tons of nests from two ship wrecks was extracted.</p> <p>The project was supported by the Ministry of Environment , Ministry of Agriculture and Rural Development and Ministry of Infrastructure.</p> <p>The final report was send to ASCOBANS Secretariat together with the national report.</p> <p>Another project concerning ghost nets is carried out by the IOUG Marine Station. It is consisting in appealing to fishermen for not to get rid of old nets in the way threatening natural environment and for better supervision of the use of nets on fisheries. The unit since 2 years collects the used nets from fishermen and seeks for their secondary use or utilization. During the project 4 ton of used nets were collected and half of this amount was secondary used.</p> <p>The Regulation 812/2004 obliges Poland to use pingers on fishing vessels of the length 12 m or more operating in the ICES 24 (the Pomeranian Bay) area. In order to fulfil this commitments 500 pingers were purchased in 2009 by the Fisheries Department of the Ministry of Agriculture and Rural Development and distributed among fishermen. 36 % of the pingers are in the possession of the owners of ships in the region where the use of deterrent devices is obligatory (the Pomeranian Bay), 20 % were distributed among fishermen from neighbourhood of ICES 24 area, other were distributed in central and eastern part of the Polish seacoast. The use of pingers in the Pomeranian Bay is controlled by the Marine Fisheries Inspectorate in Szczecin which in 2010 purchased two pinger detectors</p>
SWEDEN
Fishermen in the south of the Kattegat have been offered pingers for free and been successfully using them in the gillnet fisheries for flatfish. Six fishermen have been using pingers since March 2011.
UNITED KINGDOM
<p>Work on mitigation continues to focus on the use of one specific type of acoustic deterrent device (DDD).</p> <p>These devices (DDD03F) are being used in the UK component (outside 12NM) of the midwater pair trawl fishery for bass in the Western English Channel with continued</p>

success. A variant of the same device (DDD03H) has been adopted by the over 12m gill and tangle net fleet in the Western Channel and Celtic Sea. Observations on this fleet segment have shown the effectiveness of these devices in minimising porpoise bycatch by over 90% in nets of up to 4km in length, but the effect on common dolphins is not yet clear.

Statistical analysis of existing bycatch data did not provide a clear picture of the main factors involved in determining bycatch rates, but mesh size, twine diameter and net height all appear to be implicated. A trial involving nets of the same height and mesh size but different twine diameters is now underway to explore these issues further.

The most accurate bycatch estimates for 2010, taken from the Annex to the UK annual report to the commission on the implementation of regulation 812/2004 in 2011, were of 536 porpoises (90% UCL of 1054; CV 0.13) in UK set net fisheries in the western Channel and Celtic and Irish Seas, and 287 common dolphins (UCL 713, CV: 0.17) in the same fisheries. No estimates were available for the North Sea as sampling levels had not reached a sufficient level to provide a reliable estimate.

1.3 Other relevant information, including bycatch information from opportunistic sources.

BELGIUM

No new information

DENMARK

FINLAND

After the scheme 2006-2007 porpoise bycatches have not been reported/detected or sightings of porpoises reported by the fisherman or by the fisheries authorities.

FRANCE

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

The fishing industry has carried out an observer programs (Filmancet) dedicated to set nets in the Channel; the aim was to determine the level of by-catch in this area and to test acoustic deterrents. The observation programs were implemented from 2009-2010 with observers on board. A total of 610 days were observed in areas VIIe and VIId involving 75 boats. A total of 5 bycatches were reported (3 harbour porpoises, 1 grey seal and one pilot whale). The final report which was achieved during the year 2011 is available on the Ifremer website (<http://archimer.ifremer.fr/doc/00035/14666/>). The final report also includes a synthesis of all French bycatch data in set nets without pingers in area VII. Bycatch rate was higher in the Celtic sea and North sea than in the English Channel. Observed bycatch rate of seals suggests that the use of pingers could be problematic in the western Channel if the dinner bell effect exists.

Observers for the EC regulation (n° 812/2004) were deployed on vessels greater than 15 meters and through pilot studies on vessels less than 15 m. However it was not possible to put observers on boats less than 8m for safety reason; this may give a bias in the results for setnets which are concerned with small vessels. The national report of France for the year 2010 was achieved in 2011 and made available at the Ministry of agriculture and fisheries website (agriculture.gouv.fr/IMG/pdf/Rapport_cetaces_2011.pdf).

The results for 2010 indicate a low bycatch rate of cetaceans in the tuna pair trawl fishery and confirms the fact that the high bycatch of common dolphins observed during the year

2009 was not reflecting an average year.

Other fisheries (including sea bass and set net fisheries) were not well covered in 2010 and no extrapolation could be made.

This present bad status of the French observations at sea is due to a merge of the requirements of all the regulations and times are probably required to adapt the new system. However, since the end of the project Filmancet, observers on board of set net boats of all sizes continue to be deployed in the French fishing area of Eastern Channel, Southern North Sea, even if this was not required by the EU regulation.

GERMANY

5 pilot whales by-caught in pelagic trawls on mackerel in ICES area VIIh (Biskaya). [Kock, vTI]

A pilot study funded by the BfN was conducted to detect areas of higher by-catch conflict in the German Baltic. Contacts with fishermen were established to test alternative fishing gear and first tests were conducted. Seasonal and geographical variation of strandings and by-catches until 2010 were investigated. [Siebert, ITAW]

In the frame of the project "Harbour Porpoise Friendly Eckernförde Bay" of the Ostsee-Infocenter 5 by-caught harbour porpoises were collected anonymously from fishermen. Gear and location data was collected. 60 pingers were given for free to participating fishermen in a small-scale coastal fishery not falling under obligations in regulation 812/2004. 7 out of 12 fishermen in Eckernförde agreed to use pingers voluntarily and provide information on by-catch. [Müller, OIC]

A so far unsuccessful small scale test of baited pots was conducted (10 catch days). [Müller, OIC]

In addition to the GSM's public awareness project "Sailors on the Look-out for Harbour Porpoises" people are increasingly reporting strandings (some of which likely by-catch). The data are automatically forwarded to authorities and the strandings network. If possible, their location is also registered and published in the sightings map of BfN/GSM. This project has been handed over from GSM to the German Maritime Museum in Stralsund. [Deimer, GSM]

LITHUANIA

NETHERLANDS

In cooperation with the Coastal & Marine Union (EUCC) and IMARES a Closed Circuit TV system has been implemented in December on board of one set net fish cutter (targeting cod, turbot and brill), in the bycatch mitigation project of EUCC. One specimen of a bycatch incident involved has been brought ashore for necropsy (see C.5 Post-mortem research schemes).

Bram Couperus is serving as chair of ICES expert group Working Group on the Bycatch of Endangered Species (WGBYC).

POLAND

In pursuance of the regulation 812/2004 the National Marine Fisheries Research Institute in Gdynia was continuing in 2011 the Monitoring Incidental Catch of Cetaceans Scheme.

In 2011 neither incidental bycatch was recorded nor harbour porpoises were observed by the National Marine Fisheries Research Institute during their research. No such cases were reported also by the Polish fishermen.

Just two dead porpoise individuals washed offshore were recorded. The source of information on bycatch and individuals of harbour porpoise found dead is the website of Hel Marine Station, University of Gdansk: www.morswin.pl.

SWEDEN

In 2010 the SBF bought altogether nine camera systems to place on board fishing boats, to investigate discard as well as marine mammal and bird bycatch. Four of them were placed on trawlers and five on smaller fishing boats fishing with gillnets. A large effort was put into this project but only one fisherman was willing to participate in the project even if they were offered incentives for participating. These systems were later taken over by the SwAM whom is responsible for the task since July 2011.

UNITED KINGDOM

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

BELGIUM

The national report submitted by Belgium in implementation of Regulation 812/2004 is available as Annex 1 to AC19/Doc.2-01.

DENMARK

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0578:FIN:EN:HTML>

FINLAND

FRANCE

GERMANY

LITHUANIA

NETHERLANDS

Couperus, A.S. 2011. Annual Report of the Netherlands to the European Commission on the implementation of Council Regulation 812/2004 on cetacean bycatch. CVO Report 11.006

POLAND

Polish reports from Monitoring Incidental Catch of Cetaceans Scheme are published on the website of the Ministry of Agriculture and Rural Development at the folder: BIP/informacje branżowe/rybołówstwo/rybołówstwomorskie (<http://www.bip.minrol.gov.pl>). The report for 2011 will be published at the website of the Ministry of Agriculture and Rural Development, no later than in March 2012. The term of final acceptance of the report is determined by the need of inclusion of fisheries data from the period covering entire year 2011. Based on the data available so far it could be stated that in 2011 the observations were led on 13 vessels

operating from 9 harbours, including 6 vessels of length over 15 m. Other vessels had length from 5,8 to 7,2 m. All those vessels were operating under the Polish flag and were fishing in the ICSE areas: III a, b, c and III d south of 59°N. For fishing OTM nets were used or (on the waters east of 24 ICES subarea) GNS nets of eyes equal of larger than 80 mm.

Observations were led by the National Marine Fisheries Research Institute employees which were trained and become acquainted with the methodology of monitoring of incidental catch of cetaceans. In 2011 the observers spend 110 days on the sea, including 66 days on vessels using OTM nets and 44 days on vessels using gill nets. In the great extend the observations were led in the Puck Bay which is recognized as the area where porpoises are most frequently occur and which is treated as priority area according to the point 6 of introduction to the Regulation 812/2004.

During none of 110 monitored fishing days any incidental catch of any cetacean or other marine mammal was recorded.

The report for the year 2011 will be send do the European Commission in the term envisaged in the Regulation (WE) 812/2004

SWEDEN

The national report submitted by Sweden in implementation of Regulation 812/2004 is available as an Appendix to the Annual National Report to ASCOBANS submitted to the Secretariat.

UNITED KINGDOM

2 REDUCTION OF DISTURBANCE

2.1 Anthropogenic Noise

BELGIUM

In the framework of the construction and operation of offshore windfarms in Belgian waters, an impact study was made of the possible effect of pile driving on marine mammals. Piling of pin-piles for the foundations at the Thorntonbank (C-Power II windfarm; jacket foundations; in total 216-318 megawatt) started in April 2011, and continued into August. Aerial surveys were made before, during and after pile driving. Passive acoustic monitoring devices were moored inside and outside the concession area. The results of the aerial surveys and passive acoustic monitoring give indications that harbour porpoises were disturbed up to at least 20 km from the pile driving site (MUMM, report in preparation). The results of the 2010 marine mammal monitoring in the framework of offshore windfarm construction and operation, can be found in: Degraer, S., Brabant, R. & Rumes, B. (Eds), 2011. Offshore wind farms in the Belgian part of the North Sea: selected findings from the baseline and targeted monitoring. Royal Belgian Institute of Natural Sciences, Brussels. Haelters, J., Kerckhof, F., Vigin, L. & Degraer, S., 2011. Offshore windfarm impact assessment: monitoring of marine mammals during 2010. In: Degraer, S., Brabant, R. & Rumes, B. (Eds.). Offshore wind farms in the Belgian part of the North Sea: selected findings from the baseline and targeted monitoring. Royal Belgian Institute of Natural Sciences, Brussels. p. 131-146. Norro, A., Rumes, B & Degraer, S., 2011. Characterization of the operational noise, generated by offshore windfarms in the Belgian part of the North Sea. In: Degraer, S., Brabant, R. & Rumes, B. (Eds.). Offshore wind farms in the Belgian part of the North Sea: selected findings from the baseline and targeted monitoring. Royal

Belgian Institute of Natural Sciences, Brussels. p. 17- 26. During 2010 only little pile driving had taken place: 13 piles in January and one in February (project Belwind). Brabant, R. & Jacques, T.G., 2010. Offshore wind energy development in the Belgian part of the North Sea and anticipated impacts. In: Degraer, S., Brabant, R. & Rumes, B. (Eds.). Offshore wind farms in the Belgian part of the North Sea: early environmental impact assessment and spatio-temporal variability. Royal Belgian Institute of Natural Sciences, Brussels. p. 9-18.

DENMARK

The effect of underwater noise from shipping on harbour porpoises has been investigated under the BaltSeaPlan. The report soon will be published at: <http://www.baltseaplan.eu/index.php/Home;1/1>

FINLAND

FRANCE

A literature review on Acoustic pollution of the ocean was made by S. De Ruiter and published in Lurton 2011. An introduction to underwater acoustics, principles and application, Springer Praxis Books / Geophysical Sciences). Models for predicting the radiated level of sonar and seismic systems have been improved. Sound radiation of seafloor mapping echo sounder in the water column in relation to risks posed to marine mammals were studied (and published by Lurton et al. in International Hydrographic Review, 2011)

IFREMER continues to apply mitigation measures on his seismic surveys, based on the classical international recommendations. National workshops on noise in the sea are planned in France for 2012.

In the context of the MSFD* implementation, and at the scale of the marine sub-regions English Channel-North Sea, Celtic Seas and Bay of Biscay, an analysis of the pressures and impacts on French marine waters was made, taking into account of existing data where available. Relating the underwater noise, were made in 2011 by SHOM (Stephan et al., 2011) :

- an analysis of the sources of this pressure (shipping, sonar, underwater acoustic equipment...), including recent trends analysis;
- a literature on known ecological impacts.

* Marine Strategy Framework Directive

GERMANY

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 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. [Puffpaff, BMVg]

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 investigated. [Puffpaff, BMVg]

An international, 3 years project "PoMM" within the European Defence Agency (EDA) to establish a common marine mammal database for risk assessment was continued, it will contain sighting records, probabilities of occurrence, habitat use and species' characteristics. [Puffpaff, BMVg] - It started in August 2010 and aims to protect marine

mammals against the impact of active sonar and maintain the ability to operate active sonar at the same time. In work package 1 (WP 1) a comprehensive marine mammal database, being essential for risk mitigation tools, will be established. In WP2 special investigations on marine mammal acoustics will be carried out. The database will provide knowledge on marine mammals with focus on abundance, seasonal distribution and density of different species in areas of operational interest for European Navies. The database will be used in the planning as well as operational phases, to avoid negative impact on marine mammals by military active sonars.

The database consists of four parts:

- **encyclopedia:** species' characteristics, dictionary of methods and units, position and time of object, information on data source
- **observations** : information on sightings, cetacean groups and individuals, examination results, sighting effort
- **distribution maps:** gridded and polygon maps of abundance, seasonal distribution and density of different species
- **acoustics:** information on vocalization and recording

WP 1 consists of the work elements (WE) 1.1 Definition of Database Characteristics (almost finished), WE 2.1 Collection and Description of Basis Data Sets, WE 1.3 Development of In- and Output Tools and WE 1.4 Construction of Common Database

The aims of WP 2 are to develop tools and concepts for acoustic detection (WE2.1) and to provide a tool for the acoustic classification of marine mammals considering particularly the most critical groups and species. Participating institutions are from following countries: Germany, Norway, United Kingdom, Netherlands, Italy and Sweden. [Siebert, ITAW]

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 ITAW 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. In 2011, 3 audiograms of free-ranging harbour porpoises were collected and one animal was exposed to an airgun impulse to validate the TTS value measured in captivity. Furthermore blood-samples were taken to evaluate sound induced stress in the exposed animal. [Siebert, ITAW]

A small stacked air bubble curtain system was tested for its efficiency to mitigate underwater noise effects in Kiel Harbour. Higher attenuation levels were achieved with a carefully designed pipe layout and increased air flow rates. [Siebert, ITAW]

A new project (Cluster 7 "Underwater noise", funded by the BfN), coordinated by the ITAW, in close cooperation with the BfN and other research institutions (University Aarhus, Denmark, DW ShipConsult, Germany, University Liege, Belgium), covers a broad spectrum of diverse and varied tasks. The main goal is to develop verifiable norms for the estimation of the impact of underwater noise on marine organisms. In distinct subprojects the hearing sensitivity of harbor porpoises and seals is investigated as well as study approaches about possible damage of fish by impulsive acoustic stimuli are developed in cooperation with national and international partners. Moreover, the acoustic tolerance limit of harbor porpoises for impulsive noise from pile driving and possible stress reactions caused by anthropogenic underwater noise are investigated. In addition, seals and porpoises in the natural environment will be equipped with automatic data loggers capable to record the current sonic load in the water. The goal of such research is to gain improved knowledge about possible behavioral changes (escape reactions, changes in diving behavior or emigration from noisy areas) after noise impacts. Furthermore, in order to complement information about noise in the sea, there will be an acoustic noise mapping in Natura 2000 protected areas of the North and Baltic Seas using stationary noise recording systems.

[Siebert, ITAW]

Research project **VSM (Vertical Shaft Machine)**: "Further development of the VSM technology for the installation of offshore foundations for wind turbines"; funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325233; project coordinator: HERRENKNECHT AG, Schwanau; duration: 01.12.2010 - 31.07.2012. [Verfuß, PTJ]

Research project **ESRa**: "Evaluation of systems for ramming noise mitigation at a test pile"; funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325307; project coordinator: RWE Offshore Logistics Company GmbH, Hamburg; project partners: Bard Engineering; DONG Energy; EnBW Erneuerbare Energien; E.ON Climate Renewables; EWE Energie; Stadtwerke München (SWM); Vattenfall; duration: 01.03.2011 - 31.12.2011. [Verfuß, PTJ]

Collaborative research project **HYDROSCHALL-OFF BW II (Borkum West II)**: "Development, deployment and evaluation of a big bubble curtain for mitigating underwater noise associated with pile-driving activities", funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325309A/B/C; project coordinator: BioConsult-SH GmbH & Co KG, Husum; project partners: Hydrotechnik Lübeck GmbH, Lübeck; Itap GmbH, Oldenburg; duration: 01.04.2011 - 31.12.2012. [Verfuß, PTJ] - At this offshore wind farm the efficiency and its further development of the "Big Bubble Curtain (BBC)" as noise mitigation measurement is tested. Noise measurements were undertaken at different distances to the piling location. Using passive acoustic monitoring (C-PODs), the temporal and spatial response of harbour porpoises to the piling noise was also studied. During ramming of 28 foundations (up to February 2012), first results show that the BBC led to a clear reduction of noise. Final results will be presented in 2012. [Hoeschle, BioConsult SH]

Collaborative research project **HYDROSCHALL-OFF BO1 (BARD Offshore 1)**: "Development, deployment and evaluation of a small bubble curtain for mitigating pile-driving noise associated with the installation of offshore foundations for wind turbines ", funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325334A/B/C; project coordinator: BARD Engineering GmbH, Emden; project partners: BARD Building GmbH, Emden; Cuxhaven Steel Construction GmbH, Cuxhaven; duration: 01.05.2011 - 30.06.2012. [Verfuß, PTJ]

Research project **Hydro Sound Dampers**: "Development, test, deployment and evaluation of hydro sound dampers (HSD) for mitigating underwater noise caused by pile-driving activities associated with the installation of offshore foundations for wind turbines"; funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325365; project coordinator: Technische Universität Braunschweig, Braunschweig; duration: 01.09.2011 - 31.08.2014. [Verfuß, PTJ]

Collaborative research project **BORA**: "Development of a model for the prognosis of underwater noise caused by pile-driving activities associated with the installation of offshore foundations for wind turbines"; funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU) under the project ref. no. 0325421A; project coordinator: Technische Universität Hamburg-Harburg, Hamburg; duration: 01.11.2011 - 31.10.2015 [Verfuß, PTJ]

Testing the effects of an acoustic harassment device on the behaviour of harbour porpoises (funded by BMU; FKZ: 0325141). In order to avoid hearing damage in harbour porpoises and seals, acoustic harassment devices (AHDs) are used to deter them before the start of pile driving. Since there is too little information so far to judge if the deterring effect is sufficient, the temporal and spatial effect of a Lofitech seal scarer on harbour porpoises was tested using passive acoustic monitoring (C-PODs), aerial surveys and visual observations. Sound measurements at various distances were carried out. The seal scarer emits pulses at

14 kHz (SL ca. 189dB re 1 μ Pa). C-POD-data indicated that porpoise echolocation signals were significantly reduced up to a distance of 7 km from the AHD. These effects decreased with distance. An aerial survey indicated that the animals left the area around the seal scarer rather than reducing their acoustic activity only. A response study revealed clear avoidance reactions by porpoises out to the maximum studied distance of 2.4 km. Sighting rates of porpoises significantly declined within a 1 km observation radius. Minimum observed approach distance during 28 hours of seal scarer activity was 700 m. Findings further indicate a substantial individual variation in the response: Visual observations showed in some cases no reaction to the seal scarer. During the C-POD-study in the North Sea occasional porpoise signals were recorded at close distances to the seal scarer. Reasons for this can be different motivational states or different environmental conditions. However, the clear deterring effect in the vicinity shows, that the deployment of a seal scarer during offshore pile driving activities can greatly reduce the risk of physical injury posed to harbour porpoises by offshore pile driving. [Hoeschle, BioConsult SH]

In 2010 started the environmental monitoring of the operational phase at the first German offshore wind farm the test site "alpha ventus" with a total of 12 offshore wind energy plants approximately 45 km north of the island of Borkum (water depth ca. 30 m). In 2011 monitoring was carried out in the second year of operation phase. The monitoring program "Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment" (StUK3) was conducted according to the licensing conditions set by the Federal Maritime and Hydrographic Agency (BSH) – see: <http://www.bsh.de/en/Products/Books/Standard/index.jsp>.

Underwater sound measurements were conducted during operation of the turbines for "alpha ventus" according to the measurement descriptions in StUK3 and in addition to that 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 for the Environment, Nature Conservation and Nuclear safety (BMU). More information may be found in German under: <http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUKplus/stukplustext.jsp>

Furthermore, the German licensing authority BSH organized an international workshop dealing with aspects of the standardisation on underwater sound measurements (Hamburg 8-9 June 2011, in the frame of the StUKplus project). Based on the sound measurement experiences made with the installation of offshore wind farms in European waters scientists, authorities and agencies from the Netherlands, UK, Germany, Sweden and Denmark discussed about the standardisation of underwater sound measurements to make sure that the data revealed are comparable and based on common procedures. Establishing standard measurement procedures is the prerequisite for assessing possible impact of impulsive sound on marine mammals. Up to now there is a large divergence in applied terminology, technical methodology, data processing and evaluation of underwater impulsive sound [Boethling & Blasche, BSH]

In the frame of this StUK 3 project, after a baseline study and proximate operational monitoring, the effect of the 12 operational turbines on harbour porpoises were studied with a combination of visual surveys and passive acoustic monitoring using T-PODs and C-PODs deployed at different distances to the wind farm. Harbour porpoises were continuously recorded in the area "alpha ventus". The relative density of porpoises was quite low in the wind farm area, their seasonal occurrence was consistent over four study years. The seasonal pattern showed high detection rates in spring (March and April), followed by low detection rates from May to July and again high detection in autumn/winter. In order to prove if operational turbines have scaring effects on porpoises due to noise emission during high wind speed, a preliminary analysis of relative porpoise activity and turbine power output was performed. The results did not provide any evidence that harbour porpoises were deterred from operating wind turbines due to noise emission. [Hoeschle, BioConsult SH]

Following further on-going studies on harbour porpoises are conducted by BioConsult SH.

Results will be presented/published after finalisation: (1) Case study on potential barrier effects of the Great Belt Bridge, Denmark, on harbour porpoises. (2) Monitoring the potential disturbance and displacement effects on harbour porpoises caused by construction activities of the Nord Stream pipeline in the Pomeranian Bight using stationary acoustic monitoring devices (PODs). [Hoeschle, BioConsult SH]

Publication based on the project "Harbour porpoise response to pile driving at the Horns Rev II offshore windfarm in the Danish North Sea" (finished in 2009): 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. *Mar Ecol Prog Ser* 421:205–16. [Hoeschle, BioConsult SH]

LITHUANIA

There are no any studies done.

NETHERLANDS

TNO participates in the 3S-project, together with FFI (Norway), SMRU (UK) and WHOI (USA). In 2011 the first of a new series of experiments took place near Spitsbergen to perform BRS (Behavioural Response Studies) in order to study the behavioural effects of sonar sound on whales (1 to 30 June 2011). Target species are: Northern bottlenose whales, minke whales and humpback whales (Kvadsheim et al. 2011). Future experiments are scheduled for 2012 and 2013. Observations (and descriptions) of previous 3S-experiments (2006-2010) have been collected in a new technical report (Miller et al. 2011). Previous target species were Killer whale, (long-finned) pilot whale and sperm whale. Analysis and publication of results are in progress.

From 5 to 8 September 2011 the 4th ESOMM conference (Effects of Sound in the Ocean on Marine Mammals) was organised in Amsterdam. About 100 delegates from governments, science and industry participated to this event, focusing on sonar effects, but also addressing other underwater sound sources. ESOMM was organized by TNO (together with NL-MOD and MS&C) and hosted by the Royal Netherlands Navy.

Within the EDA (European Defence Agency) TNO, together with other partners (GER, NOR, ITA, UK), is developing a marine mammal database. This database should become available for participating nations in order to improve accuracy and efficacy of mitigation measures for naval sonar operations. This EDA-PoMM project (Protection of Marine Mammals) is to be finalized in 2013.

The NL-mitigation software for naval operations SAKAMATA has been introduced to the fleet of the Royal Netherlands Navy (RNLN) in 2010. Currently the software is being upgraded to improve user interface and implement latest research results. This new version of the SAKAMATA software is scheduled to be delivered end of 2012. New algorithms for implementing sound exposure calculations and efficacy of ramp-up schemes for sonar transmissions will be published in the course of 2012.

The release of Whale FM took place end of 2011 (<http://whale.fm>). This website, as initiated by TNO (dr. Sander von Benda-Beckmann), is asking volunteers on the internet to help classifying marine mammal sounds ("crowd sourcing"). Several press agencies and radio stations showed their interest soon after the release of this website. First classification results are already included in a scientific paper that is submitted for publication. These preliminary findings are promising, but more conclusive results are to be awaited.

Measurements of pre-construction work ambient noise were made in 2008 in the Maasvlakte as an environmental impact assessment (Dreschler et al. 2009). They are published at www.noordzeeloket.nl in early 2012; measurements of noise during construction and of dredger source levels (de Jong et al. 2010) were made in 2009 and published at www.noordzeeloket.nl in early 2012. See also relevant ASA and UAM papers. (Ainslie & de

Jong 2011, Ainslie et al 2011a, Ainslie et al 2011b).

TNO is participating in the ISO Working Group that is developing a standard for measuring sound radiated from ships. A Publically Available Specification (PAS) produced by this Working Group, closely based on ANSI Standard S12.64, was published in February 2012 and is now available from ISO

(http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=59403)

Pile driving noise: A finite element model of sound radiated from an impact pile driver has been developed and tested (de Jong, Zampolli et al. 2011). In collaboration with other European projects, a draft measurement plan has been written, available from the author (de Jong et al 2011).

Piling noise measurements were carried out as part of the FLOW project with IHC (Jansen et al. 2011).

SEAMARCO continued their research examining the hearing thresholds of harbour porpoises after exposure to sounds of various levels and durations (Kastelein et al. 2011). TNO contributes to these studies. Effects of noisebands on temporary threshold shift studies have been studied. A start has been made to study the effect of pile driving sounds.

The ZKO project "Effects of underwater noise on fish and marine mammals in the North Sea" led by IMARES, in collaboration with TNO, SEAMARCO and University of Leiden. [<http://www.nwo.nl/projecten.nsf/pages/2300168538>] has started.

A method to quantify the environmental cost of different underwater sound sources, and compare different sources on a like with like basis, was developed in collaboration with RWS (Ainslie & Dekeling 2011).

TNO participated in the meeting of Aug-Sep 2011 of the International Quiet Ocean Experiment (IQOE), and has contributed to the draft Science Plan that will be published in 2012.

Michael Ainslie represents NL on the EC expert Technical Sub-group Underwater Noise "TSG Noise". The final report of the TSG Noise was published in February 2012 (van de Graaf et al. 2012). In collaboration with other projects in Europe, a standard terminology for underwater sound (AHEWGTUS 2011) has been proposed. The TSG report recommends the standard be adopted by all MS. The IQOE draft science plan also refers to the standard.

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Reports:

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de Jong CAF, MA Ainslie (2011) Standard for measurement and monitoring of underwater noise, Part II: procedures for measuring underwater noise in connection with offshore wind farm licensing, TNO report TNO-DV 2011 C251, September 2011.

de Jong CAF, MA Ainslie, J Dreschler, E Jansen, E Heemskerk, W Groen (2010) Underwater noise of trailing suction hopper dredgers at Maasvlakte 2: Analysis of source levels and background noise, TNO report TNO-DV 2010 C335, November 2010.

Dreschler J, MA Ainslie, WHM Groen, Measurements of underwater background noise Maasvlakte 2, TNO report TNO-DV 2009 C212, May 2009.

Jansen HW, de Jong CAF & FM Middeldorp, Measurement results of the underwater piling noise experiment at Kinderdijk, TNO report TNO-RPT-2011-00546

H W Jansen, P J G van Beek, W H M Groen & M van Spellen, Measurement of the acoustic insertion loss of various configurations of the IHC underwater piling noise mitigation screen, TNO report TNO-DV 2011 C381

Other reports:

Kvadsheim, Miller, Doksæter, Visser, Kleivane, van IJsselmuide, Samarra, Wensveen, Curé, Hickmott and Dekeling (2011) Behavioural response studies of cetaceans to naval sonar signals in Norwegian waters - 3S-2011 cruise report. FFI-rapport 2011/01289. <http://www.ffi.no/no/Rapporter/11-01289.pdf>

Lam, Dekeling and Siemensma (2011) Abstract book and presentations. 4th ESOMM

conference, Amsterdam.

Miller, P, R Antunes, A C Alves, P Wensveen, P Kvadsheim, L Kleivane, N Nordlund, FP Lam, S van IJsselmuide, F Visser, P Tyack (2011) The 3S experiments: studying the behavioural effects of naval sonar on killer whales (*Orcinus orca*), sperm whales (*Physeter macrocephalus*), and long-finned pilot whales (*Globicephala melas*) in Norwegian waters. SOI-technical report, SOI-2011-001 <http://soi.st-andrews.ac.uk/documents/424.pdf>

Van der Graaf AJ, Ainslie MA, André M, Brensing K, Dalen J, Dekeling RPA, Robinson S, Tasker ML, Thomsen F, Werner S (2012). European Marine Strategy Framework Directive - Good Environmental Status (MSFD GES): Report of the Technical Subgroup on Underwater noise and other forms of energy, February 2012.

POLAND

The impact of acoustic disturbances on cetaceans has not been a subject of any research Project within the Polish zone of the Baltic Sea.

SWEDEN

Two reports were ordered by the Swedish Environmental Protection Agency (SEPA) and subsequently received by the SwAM to complete the missions:

- 1) FOI, the Swedish Defence Research Agency, has reported regarding the Marine Strategy Framework Directive's descriptor 11. Their task was to give suggestions for how a national indicator for good environmental status for underwater noise could be applied. The report will be an important input in the authority's report to the European Commission for the initial assessment of the current environmental status of the Swedish communities of North and Baltic Seas. In addition the report will be helpful for further development of policies and monitoring programs as well as for implementation of measures.
- 2) AquaBiota Water Research has reported to the SwAM regarding recommendations to minimize the impact from human generated underwater noise on marine mammals. The report is planned to be released in 2012.

UNITED KINGDOM

Following ASCOBANS request for Parties to introduce mitigation measures with respect to seismic surveys, the UK has presented data on 2D and 3D seismic survey activity in the UK maritime area for periods since 1997 at a number of ASCOBANS Advisory Committees and Meetings of the Parties over the past five years. The most recent update from the Department of Energy and Climate Change (DECC) is in the 'Information on Seismic Survey Activities by the United Kingdom 2010' report. This report also covers 4D surveys undertaken, and is available on request.

2.2 Ship Strike Incidents

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)
BELGIUM						
One probable ship strike occurred with an adult harbour porpoise (69 kg, lactating female) in the river Scheldt.						
DENMARK						
FINLAND						
FRANCE						
10.11.2011	Fin whale	Ship strike	Yes	unknown	Antifer, Le Havre	PELAGIS/ULR
02.11.2011	Fin whale	Ship strike	Yes	unknown	Plouhinec	PELAGIS/ULR
24.03.2011	Minke whale	Ship strike	Yes	unknown	Boulogne sur mer	PELAGIS/ULR
GERMANY						
LITHUANIA						
There weren't any incidents recorded in Lithuanian Sea zone.						
NETHERLANDS						
POLAND						
In the Polish EEZ no collision of any vessel was registered.						
SWEDEN						
No known incidents in Swedish waters during 2011						
UNITED KINGDOM						

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
BELGIUM			
none			
DENMARK			
FINLAND			
FRANCE			
23-24/03/11	Pays Basque et Landes (south bay of Biscay)	Multiple stranding= bycatch	35 necropsies performed in two day, mostly common dolphin with net marks, damage during release from the net, evidence of hypoxia and good health state Pelagic trawl suspected
GERMANY			
LITHUANIA			
NETHERLANDS			
POLAND			
SWEDEN			
UNITED KINGDOM			
22/07/11	Kyle of Durness, northwest Scotland	Mass stranding	A pod of long finned pilot whales (<i>Globicephala melas</i>) entered the shallow, estuarine environment of the Kyle of Durness and 39 animals subsequently mass stranded. Rescue efforts led to the successful refloat of 20 of the stranded animals, but 19 died. A Defra/Marine Scotland funded investigation of the mass stranding event has been conducted by the CSIP, led by Scottish Agricultural College (Inverness). A full report of the investigation will be shortly published.

*Two or more animals

2.4 Pollution and Hazardous Substances

BELGIUM
No specific effects on small cetaceans washed ashore at the Belgian coast were investigated, although from selected stranded animals tissue samples were taken for further investigation of pollutant loads. Levels of pollutants in biota, water and sediment, and inputs of pollutants, will be reported on in the initial assessment report for the implementation of the Marine Strategy Framework Directive (to be delivered during 2012). Relevant article (Belgian affiliation) and abstract: Jauniaux, T., Farnir, F., Fontaine, M., Kiszka, J., Sarlet, M. & Coignoul, F., 2011. Cytochrome P450 1A1 expression in cetacean skin biopsies from the Indian Ocean. <i>Marine Pollution Bulletin</i> 62:1317–1319. Jauniaux, T., Das, K., Haelters, J., Jacques, T., Kiszka, J., Pezeril, S., Stekké, V., Weijs, L. & Coignoul, F., 2011. Relationship between biological, pathological and toxicological parameters and the cause of death in harbour porpoises (<i>Phocoena phocoena</i>) stranded on the coast of Belgium and northern France between 1990 and 2008. European Cetacean Society Conference, Cádiz, Spain.
DENMARK
FINLAND
FRANCE
GERMANY
LITHUANIA
No new measures have been taken.
NETHERLANDS
IMARES continues its study on concentrations and distribution of contaminants in beached harbour porpoises with a focus on PCBs, PBDEs, PFOS, TBT, and chemical fingerprinting (GC-GC-MS). In 2011 a first report was finalized on redistribution processes of organic contaminants in harbour porpoises due to starvation. References: van den Heuvel-Greve MJ, Glorius S, Bierman S, Kotterman M (2011). Chapter 3: Contaminant distribution in harbour porpoises, <i>Phocoena phocoena</i> , stranded along the Dutch coast, pp 60-97. In: M Leopold, M Scheidat, M van den Heuvel-Greve, O Jansen, A Beerman, G Aarts, M Kotterman, S Glorius, S Bierman, M Kotterman, H Verdaat (2011). Abundance, strandings and food ecology of harbour porpoises. IMARES report, May 31 2011.
POLAND
The tasks undertaken in order to limit water pollution result from the EU legislation and from Helsinki Convention signed by Poland; they are reported to the European Commission and

to the relevant HELCOM bodies on a regular basis.

SWEDEN

The Swedish Museum of Natural History (SMNH) is carrying out a 3-year study on several contaminants in harbour porpoises from Swedish waters. The study is funded by the SEPA. Samples from more than 20 harbour porpoises from the Skagerrak, the Sound (between Sweden and Denmark) and the Baltic Sea have been sent for contaminant analyses for TBTs, PFCs and heavy metals in liver and PCB, DDT, PBDE in blubber. Most of the analyses of the contaminants are finished and the results will be presented in 2012 Annual report. Preliminary results indicate similar concentrations of most metals, TBTs, and PFCs and organochlorine compounds in porpoises from the Baltic Proper, the Sound, the Kattegat and the Skagerrak, with the exception of mercury and selenium which is higher in porpoises from the Kattegat area. Age is an important factor for interpretation of exposure and concentration of contaminants. Since age determination has not been completed of all specimens, the final results of this study will be reported later.

UNITED KINGDOM

During 2011, Defra funded the analysis of 100 retrospective samples from UK-stranded harbour porpoises (2004-2008) for polychlorinated biphenyls (PCBs) at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS, www.cefasc.co.uk/). Combining this new data with older data from 1990-2008 has enabled a near 20-year time series of data for PCBs (n=540), OC pesticides (n=489) and brominated diphenyl ethers (BDEs) (n=415) in UK-stranded harbour porpoises (Law et al submitted). Initial results show that concentrations of organochlorine pesticides, HBCD and BDEs are declining. In contrast, PCB concentrations have reached a plateau since 1997 following earlier reductions due to regulation of commercial use. Further reductions in PCB levels in UK waters are likely to take decades. Blubber PCB concentrations are still at toxicologically significant levels in many stranded harbour porpoises (Jepson et al 2005) and occur at even higher levels in UK-stranded bottlenose dolphins and killer whales (ICES 2010), mainly due to their higher trophic level in marine food chains in these top predator species. Further reductions in PCB inputs into the marine environment are undoubtedly needed to mitigate risk from PCB exposure in these species (ICES 2010, Law et al submitted).

Given the concerns about high PCB levels, ASCOBANS funded IoZ to co-ordinate a project to assess PCB exposure in stranded bottlenose dolphins in European waters (Project ref: SSFA/ASCOBANS/2010/3). Blubber samples from stranded bottlenose dolphins from UK, Spain and Portugal are currently being analysed for organochlorine contaminants (PCBs). Data will be analysed and reported to the ASCOBANS Secretariat later in 2012.

ICES. 2010. Report of the Working Group on Marine Mammal Ecology (WGMME), 12-15 April 2010, Horta, The Azores. ICES CM 2010/ACOM:24. 212 pp.

(www.ices.dk/reports/ACOM/2010/WGMME/wgmme_final_2010)

Jepson, P.D., Bennett, P.M., Deaville, R., Allchin, C.R., Baker, J.R., Law, R.J. (2005) Relationships between polychlorinated biphenyls and health status in harbor porpoises (*Phocoena phocoena*) stranded in the United Kingdom. *Environmental Toxicology and Chemistry* 24, 238-248.

Law, R.J., Barry, J., Barber, J.L., Bersuder, P., Deaville, R., Reid, R.J., Brownlow, A., Penrose, R., Barnett, J., Loveridge, J., Smith, B. and Jepson, P.D. Contaminants in cetaceans from UK waters: status as assessed within the Cetacean Strandings Investigation Programme from 1990 to 2008. (submitted for publication)

2.5 Other Forms of Disturbance

BELGIUM
No new information.
DENMARK
FINLAND
FRANCE
GERMANY
LITHUANIA
No new forms of disturbance have been found.
NETHERLANDS
<p>IMARES finalized a study on the possible impact of an operating wind farm off the North Sea coast of The Netherlands (close to Egmond at Sea). The outcome has provided reference data on occurrence and distribution of harbour porpoises in the wind farm area and two reference areas before and after construction. The results of the study indicate that harbour porpoises use the area of the wind farm after construction (Scheidat et al. 2011).</p> <p>In 2010, IMARES finalized a CPOD study on the possible impact of the Prinses Amalia Wind farm on harbour porpoises during the second year of operation . The report is expected to be released in 2012.</p> <p>From spring 2009 until December 2011 onwards an on-going Passive Acoustic Monitoring study using CPODs is conducted in the Ems estuary (close to the border between Germany and the Netherlands) by IMARES. The aim is to monitor changes in abundance (and behaviour) of harbour porpoises in relation to building activities associated with the extension of the harbour in the Eemshaven, and the deepening of the estuary for traffic.</p> <p>References:</p> <p>Lindeboom, HJ et al. 2011 Short-term ecological effects of an offshore wind farm in the Dutch coastal zone; a compilation doi:10.1088/1748-9326/6/3/035101</p> <p>Scheidat M, Tougaard J, Brasseur S, Carstensen J, Van Polanen-Petel T, Teilmann J and Reijnders P 2011 Harbour porpoises (<i>Phocoena phocoena</i>) and wind farms: a case study in the Dutch North Sea Environ. Res. Lett. 6 025102</p>
POLAND
No data
SWEDEN
Nothing to report

UNITED KINGDOM
Wales The Ceredigion County Council study of cetacean site use and boat traffic along the Marine Heritage Coast and Cardigan Bay SAC is in its 19th year with over 8000 hours of volunteer effort.

3 MARINE PROTECTED AREAS FOR SMALL CETACEANS

BELGIUM
No new information.
DENMARK
In June 2011, Denmark began a monitoring program of the designated SACs (special areas of conservations, Natura2000) for harbour porpoises. Passive acoustic dataloggers, CPODs, have been deployed in two SACs, an acoustic porpoise survey has been conducted in the Inner Danish waters, two aerial surveys have been performed covering SACs: one in the North Sea and one in Skagerrak.
FINLAND
FRANCE
Between October 2008 and February 2010, 95 marine Natura 2000 sites have been designated by France. Among all existing Natura 2000 sites in the ASCOBANS area, Bottlenose dolphin is listed in 39 and Harbour porpoise in 37, both on the Channel and Atlantic coast. The Management Plan of the Marine Protected Area in Iroise Sea (West Brittany) has been adopted and is applicable to the Natura 2000 sites of the Molène archipelago and Ouessant.
GERMANY
Within the process of developing national management plans for the 8 designated German SACs, protection measures for marine mammals/harbour porpoises are being designed and proposed to authorities. For harbour porpoises, as an Annex IV species of the habitats directive, in addition conservation plans are being developed for the whole German North and Baltic Sea (BfN, ITAW). [Siebert, ITAW]
LITHUANIA
No protected areas for cetaceans are established in Lithuania
NETHERLANDS
In the Dutch Continental Shelf and Coastal Waters four sites have been identified as marine protected areas: two offshore, i.c. Dogger Bank (Doggersbank) and Cleaver Bank (Klaverbank) and two in the coastal zone, i.c. Noordzeekustzone in the north and Vlakte van de Raan in the south. These areas have been notified to the EU commission as Special Areas of Conservation (SACs) under the European Habitats Directives. The two coastal

areas were designated by the Dutch minister in 2011. The offshore areas will be designated before the end of 2012.

The areas will also be reported to the OSPAR Secretariat as MPA's according to the OSPAR Convention. These future SACs will also be designated for small cetaceans, but additional measures for their protection are unlikely, because the protection of the harbour porpoise will cover the whole Dutch EEZ. The conservation target will probably be formulated as follows: "Maintain the extent and quality of the habitat in order to maintain the population in a sustainable condition".

http://www2.minlnv.nl/thema/groen/natuur/natura2000_2006/noordzee_4habitatrlg/Inspraak_aanmelding.htm

http://www.noordzeenatura2000.nl/index.php?option=com_docman&task=cat_view&gid=57&Itemid=89

POLAND

For the last two years there are 9 marine areas protected under the Baltic Sea Protected Areas – HELCOM BSPAs in Poland. All of them are included in Natura 2000 network.

At least three of them, namely the Pomeranian Bay, the Puck Bay and the Słowińska Refugee, are of significance for the protection of porpoises. Those areas do not have so far respective management plans which would take into account the protection of small cetaceans. Such plans are presently under development which will be finished till 2014.

SWEDEN

In 2011 the government has declared the following areas as a Special Area of Conservation (SAC): Fladen and Lilla Middelgrund, Kullaberg and Vrångöskärgården in the Kattegat, as well as Kosterfjorden–Väderöfjorden in the Skagerrak. Previously Stora middelgrund & Rödebank was in 2009 declared as a Site of Community Importance (SCI), in which porpoise occurs.

The area Skälderviken, a bay of the south western coast, and is protected under the birds directive. The abundance of harbour porpoise was in 2010 investigated in bay by using Porpoise click loggers (PCL). The fishing effort of gillnets in the same areas was surveyed and compared to the porpoise abundance. The results show a high abundance of harbour porpoise, particularly in one part of the bay. The same year the marine region was discussed as a new Natura 2000 site, particularly designated to protect the harbour porpoise. However, the Swedish government decided in May 2011 to not designate the area as a SCI to complete the Natura 2000 network. The SEPA explained to the EU commission that results from investigations indicated that the harbour porpoise appears sporadically in the area. In line with the habitat directive 4.1, Sweden did not find it motivated to designate more sites for the species but could be interesting. Better knowledge the area's importance for feeding, reproduction, as well as for other behaviour is needed.

UNITED KINGDOM

Scotland

The Wyville Thompson Ridge cSAC, identified for its habitat features, lists bottlenose dolphins as a feature of the site was submitted to the European Commission for consideration in October 2010. Three offshore sites which were identified for their habitat features, but also list harbour porpoises as a feature were also submitted. These are North West Rockhall Bank cSAC, Haisborough, Hammond and Winterton cSAC and Inner Dowsing, Race Bank and North Ridge cSAC. Following submission, these sites are now being managed as if they were designated SACs.

<p>Wales</p> <p>Monitoring of bottlenose dolphin and harbour porpoise was undertaken in Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation under contract to Countryside Council for Wales. Management advice was provided to CCW and the local County Councils (see Veneruso & Evans, 2012). Recent measures affecting both sites include the The Scallop Fishing (Wales) (No.2) Order 2010 that provides protection to seabed habitats from scallop dredging activity for most of the sea area covered by these sites.</p> <p>Jersey</p> <p>Ramsar Management Plans prepared (one published; three in final draft) highlighting importance of cetaceans. Monitoring strategy includes monitoring on cetacean activity</p>
<p>3.1 Sources of GIS data of the boundaries (and zoning, if applicable)</p>
<p>BELGIUM</p>
<p>DENMARK</p> <p>Contact: Signe Sveegaard, <i>sign@dmu.dk</i></p>
<p>FINLAND</p>
<p>FRANCE</p> <p>Agence des aires marines protégées Président : Jérôme Bignon, député de la Somme Directeur : Olivier LAROUSSINIE Adresse du siège et contact : Agence des aires marines protégées 16 quai de la Douane 29229 Brest Cedex 2 standard : +33 (0)2 98 33 87 67 télécopie : +33 (0)2 98 33 87 77</p> <p>Ministère de l'Écologie, du Développement durable des transports et du Logement Mer Grande Arche Tour Pascal A et B 92055 La Défense CEDEX Natura 2000 network : charlotte.de-pins@developpement-durable.gouv.fr Téléphone tél : + 33 (01) 40 81 21 22</p>
<p>GERMANY</p>
<p>LITHUANIA</p>

NETHERLANDS
More information on the marine Natura2000 sites in the Netherlands can be obtained at: http://www.noordzeenatura2000.nl/
POLAND
Detailed borders of all areas mentioned above are available at the General Directorate of Environmental Protection in Warsaw, Poland (http://www.gdos.gov.pl/Articles/view/1889/Kontakt). They are also displayed at the website: http://natura2000.gdos.gov.pl/natura2000/pl/proste.php
SWEDEN
UNITED KINGDOM
http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030355 http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030363 http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030370 http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030369

B. SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

BELGIUM
The estimates of harbour porpoise densities (aerial surveys) in early spring 2011 were the highest ever recorded. Average densities in Belgian waters during March were estimated at 2 to 3 harbour porpoises per km ² (Haelters et al., 2012, in press). Due to the unavailability of the aerial surveillance aircraft, no further aerial surveys could be performed from summer 2011 onwards. However, anecdotal reports indicated that harbour porpoises were commonly encountered in Belgian waters during summer months. During 2011 PoDs were moored at three locations. A PoD lost during 2011 was found on a beach in Denmark during 2012. Marine mammals were further recorded during ship-based seabird surveys (INBO), and a towed hydrophone system, adapted to detect the presence of cetaceans, was used on some campaigns with the vessel Zeeleeuw (VLIZ). Besides of harbour porpoises, regular sightings were made of mostly small groups (1 to 6 animals) of white-beaked dolphins. One group however, observed on 29 October 2011, consisted of 30 to 50 animals, and included calves. One observation of a humpback whale was reported, one observation of a bottlenose dolphin, and one observation of two common dolphins
DENMARK
The SAMBAH project to estimate abundance and distribution of harbour porpoises in the Baltic Sea by static acoustic monitoring is running in the data collection phase. Analysis of data starts in 2013. • Acoustic surveys have been used to confirm high density areas obtained from telemetry data. This improves the confidence in our data on how porpoises are distributed in Danish waters: Sveegaard, S., Teilmann, J., Tougaard, J., Berggren, P.,

Mouritsen, K.N., Gillespie, D. 2011. Acoustic surveys confirm the high-density areas of harbour porpoises found by satellite tracking. ICES Journal of Marine Science, 68(5), 929-936. • Satellite telemetry data have been used to define high density areas of porpoises. These areas have been helpful in determining the newly established Danish marine Nature2000 areas. Sveegaard, S., Teilmann, J., Tougaard, J., Dietz, R., Mouritsen, K. N., Desportes, G., Siebert, U. 2011. High-density areas for harbor porpoises (*Phocoena phocoena*) identified by satellite tracking. Marine Mammal Science 27(1), 230-246.

FINLAND

Finland is taking part to SAMBAH (Static Acoustic Monitoring of the Baltic Sea Harbour porpoise) project. In the project, 300 SAM units will be used over a two years period (2011-2012). Ca. 47 units will be deployed in Finnish waters. More info available on <http://www.sambah.org>

FRANCE

Monitoring of the coastal group of bottlenose dolphins (Oceanopolis Brest in Iroise Sea), photo-identification, home range, population structure (a new protocol is under work with the Iroise MPA).

Photo identification of bottlenose dolphins of the Bay of Mont Saint Michel and Cotentin (GECC, GMN, Al Lark)

Boat surveys on cetaceans in the southern Bay of Biscay (GEFMA); relationship between cetacean populations and climate change (MNHN in the framework of a regional programme on the marine environment).

Data collection of opportunistic sightings (CRMM/ULR, GECC, GEFMA, Oceanopolis Brest).

Systematic vessel survey of cetaceans in relation to oceanographic, planktonic and pelagic fish spatial patterns in the Bay of Biscay

- PELGAS Program, Ifremer, PELAGIS/ULR : spring survey carried out yearly in May on the continental shelf of the Bay of Biscay (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously);

- IBTS Program, Ifremer, PELAGIS/ULR: winter survey carried out yearly in January across the English Channel: (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously);

- EVHOE Program, Ifremer, PELAGIS/ULR: autumn demersal fish survey carried out yearly in October-November across the Bay of Biscay (top predators recorded on transit between trawl hauls);

- PELACUS Program Centro Oceanográfico de Vigo (Instituto Español de Oceanografía, IEO), in co-operation with PELAGIS/ULR: spring survey carried out yearly in April over the continental shelf from southern Bay of Biscay to Galicia (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously).

Systematic aerial surveys of cetaceans and other megafauna (mainly seabirds) are conducted by PELAGIS/ULR and AAMP from November 2011 to August 2013 to identify priority areas for the designation of future Natura 2000 sites in the French EEZ. The survey protocol follows a systematic zig-zag line transect pattern across 4 bathymetric strata: coastal, shelf, slope and oceanic.

Ferry observer surveys between Roscoff and Cork, Portsmouth and Santander (Oceanopolis Brest/Orca), using a standardized protocol.

Genetic study on harbour porpoise (collaboration between the university of Brest and Oceanopolis Brest). A PHD student is now involved.

Population structures of small cetaceans around Galicia are investigated by using ecological tracers (P. Mendez-Fernandez PhD project; collaboration ULR, University of Aberdeen, University of Braga, IEO Vigo).

The impact of by-catch on common dolphin was investigated by analyzing distributions of age and female reproductive status of stranded animals (Mannocci et al., 2012). It was shown that the current removal would be acceptable under a one stock scenario comprising animals living over the shelf and in oceanic waters in one single unit, whereas, under a two stocks scenario, as proposed from ecological tracer studies that would separate neritic and oceanic animals in distinct units, current takes would not be sustainable for the putative neritic unit.

Prey preferences among the community of 9 species of deep-diving odontocetes from the Bay of Biscay were investigated from stranded material showing (Spitz et al. 2011. Deep Sea Research I; PELAGIS/ULR). The study described diets from stomach content analysis and showed resource partitioning within the assemblage. With more than 14,000 identified cephalopods from 39 species, the present study highlighted also the poorly known deep-sea cephalopod community off the Bay of Biscay using top cetaceans as biological samplers.

A multivariate analysis of the spatial association between small pelagic fishes and their predators (seabirds, marine mammals and fisheries) used 6 yr (18000 km) of transects surveyed in spring in the Bay of Biscay, France. Common dolphins were significantly associated to sprat and sardine <20 cm and bottlenose dolphins with horse mackerel and mackerel from 25-40 cm (Certain et al., MEPS 2011; PELAGIS/ULR).

An ECOPATH model of the Bay of Biscay was aimed to model the energy fluxes within the food web of this highly pressured ecosystem. A model comprising 30 living and two non-living compartments was successfully constructed with data from the Bay of Biscay continental shelf. Ecological network analysis provided evidence that bottom-up processes play a significant role in the population dynamics of upper-trophic levels, including cetaceans (Lassalle et al. 2011, Progress in Oceanography).

GERMANY

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

In 2011, four dedicated aerial surveys were carried out in the south-western part of the German North Sea and in parts of neighbouring Dutch waters as part of the research around the offshore wind test field "Alpha Ventus". Between April and September 2011, a total of 5,900 km were covered on effort and a total of 613 harbour porpoise sightings (729 individuals, of these 29 calves) were recorded. The highest density has been estimated in Juli 2011 the lowest in September 2011. In April 2011 a ship survey (double platform) was conducted in the area of the test field (study area 2,110 km²). During 1,368 km on effort a total of 406 harbour porpoise groups with 570 individuals were sighted (249 sightings by tracker and 157 sightings by primary observers). This research is funded by the Federal Environment Ministry (BMU) and coordinated by the Federal Agency for Shipping and Hydrography (BSH) within the "StUKplus-Project".

Two aerial surveys were carried out in the north-eastern part of the German North Sea, in the area of the SCI Sylt Outer Reef. In June 2011, an effort of 1.607 km could be achieved and a total of 531 harbour porpoise sightings (736 individuals, of these 102 calves) were recorded. In July 2011, effort has been comparable with 1.610 km, but the sighting rate was much lower: a total of 183 sightings with 241 individuals (of these 28 calves) were recorded. During the survey off the East Frisian Islands (including SCI Borkum Reef Ground) in March 2011, 126 sightings with 141 harbour porpoises were recorded. During the survey in May 2011 332 sightings with 357 porpoises were recorded, most animals were sighted north and west of Borkum. In comparison with earlier surveys conducted in the same area since 2002,

the density estimated for March and May 2011 belong to the highest for that area. This indicates an ongoing increase of porpoise density in the southern North Sea.

In the German Baltic Sea and in parts of Danish waters, one aerial survey has been conducted in summer 2011. In June 2011, 33 sightings with 38 porpoises were recorded. Relatively few sightings were recorded in the Kiel Bight. Compared with surveys conducted since 2002, densities are decreasing in the Kiel Bight since May 2010. Porpoise density in the Fehmarn Belt area and Mecklenburg Bight varies strongly since 2002.

In order to enhance the data basis for the evaluation of the status of small cetaceans in North Sea offshore areas, a unique survey of marine mammals in the area of the Dogger Bank was conducted in August 2011. The first international aerial survey covering the entire Dogger Bank area and adjacent slopes (study area 66,768 km²) with a high spatial resolution was accomplished successfully in late summer 2011. It shows that harbour porpoises strongly frequent the area during that time of the year. Other small cetaceans, like minke whales and white-beaked dolphins, were only rarely recorded. During 5,997 km effort 771 harbour porpoise sightings with 1,104 animals were recorded, including 97 calves. Most sightings were recorded along the slopes and fewer animals were sighted at the Dogger Bank itself. Acoustic data on harbour porpoise presence in the Dogger Bank area, gathered during ship surveys using a towed hydrophone (IFAW), were additionally processed and analysed. Acoustic surveys were conducted in the area of the Dogger Bank during summer 2005, 2006 and 2008. During 14,602 km on effort 362 porpoise detections were recorded (on average 0.025 detections were recorded per km). Most harbour porpoises were detected in the eastern part and at the slopes of the Dogger Bank area.

These surveys are part of the German monitoring programme of Natura 2000 sites, funded by the Federal Agency for Nature Conservation (BfN). [Siebert, ITAW]

In Fall 2011 a monitoring scheme with four CPOD-stations in the German Wadden Sea was established by the Nationalpark Wattenmeer. The ITAW is carrying out the work. Three positions are in the Schleswig-Holstein Wadden Sea and one in the Lower Saxony Wadden Sea. [Siebert, ITAW]

In November 2011 a first C-POD was installed in the outer Jade. It is planned, to observe activities of harbour porpoises all the year at this station. This action is a result of the combined efforts of the National Park Administration of Schleswig-Holstein and Lower Saxony to monitor the presence of harbour porpoises in coastal waters using C-PODS. Between October 2009 and August 2010 the Waterways and Shipping Administration of the Federal Government installed several C-PODs in the Ems estuary to research the presence of harbor porpoises. A description of the project is available at: http://www.wsv.de/wsd-nw/service/pdf/heft44/Beitrag_10.pdf The combined effort of the county of Wesermarsch and the Society for Dolphin Conservation Germany (GRD) to detect harbour porpoises entering the river Weser (opportunistic sightings scheme in place since 2007) is still ongoing. See: http://www.delphinschutz.org/projekte/weser/schweinswal_sichtungen_in_weser_und_elbe_2011.htm [Czeck, NP-LS] - 23 sightings with 48 harbour porpoises were reported by sailors, boaters, hikers and local residents in 2011. [Wenger, GRD]

With the financial support from 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 harbour porpoises using T-PODs and C-PODs (porpoise click detectors) in the Baltic Sea. Our long-term dataset (2002 to 2007) consisting of data from a network with up to 42 POD positions, has shown seasonal and geographical patterns of harbour porpoises revealing annually migration behaviour. Furthermore, the study highlighted that the harbour porpoise still occurs in the entire German Baltic Sea despite the dramatic decline of the population.

Between 2008 and 2011 the study was 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 the 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, has replaced older click detectors. The recent porpoise monitoring project and the SAMBAH (Static Acoustic Monitoring of the BAItic Harbor Porpoise) project are 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 measurement. More information is available at

<http://www.meeremuseum.de/wissenschaft/forschungsprojekte.html> [Gallus, DMM]

A further on-going study on the occurrence and distribution of harbour porpoises in the Fehmarnbelt area is conducted by BioConsult SH. Results will be presented/published after finalisation. [Hoeschle, BioConsult SH]

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 Fleet, new marine mammal identification tables were introduced to provide support for collecting and recording sightings data of the abundant species in different sea areas. An acoustic and visual survey of marine mammals in the Azores front area was conducted to test and evaluate new passive acoustic monitoring equipment and to compare methods for estimating abundance. [Puffpaff, BMVg]

LITHUANIA

There are no researching works done

NETHERLANDS

In 2011 IMARES reported on a series of aerial surveys of harbour porpoises on the Dutch Continental Shelf in July 2010 and October/November 2010 and March 2011, under the umbrella of the Shortlist Masterplan Wind. These surveys resulted in the first abundance estimates of porpoise for the entire Dutch North Sea waters (Geelhoed et al. 2011). A paper on the aerial surveys from 2008 till the SMW surveys was published (Scheidat et al. 2012).

The NZG Marine Mammal Database is part of the Dutch Seabird Group (NZG) (established by Kees Camphuysen). Its aim is to collect all sighting of marine mammals in and around The Netherlands. The main number of sightings come from two research programs: seawatching and offshore seabird surveys. More information is available at: <http://home.planet.nl/~camphuys/Cetacea.html> as well as at www.trektellen.nl.

Strandings (live and dead) are collated in a database presented at the webpage www.walvisstrandingen.nl (see section C). Records of live sightings as well as dead animals are also found at www.waarneming.nl.

The Rugvin Foundation is a volunteer-based organisation conducting cetacean surveys in the Southern North Sea and Oosterschelde and member of the Atlantic Research Coalition (ARC). In 2010 they continued their monitoring programme from the Stena ferry line platforms between Hoek van Holland and Harwich. In 2010, 207 porpoise sightings with 403 individuals were counted. It was the first year without sightings of White-beaked Dolphins. They also conducted a porpoise survey on the Oosterschelde to establish the (minimum) number of Harbour Porpoises and calves throughout the year. In 2010 15 porpoises including calves were counted. Additionally acoustic monitoring of the storm surge barrier in the Oosterschelde was conducted using C-PODs.

As part of the 3S-2011 experiment, a substantial area near Spitsbergen has been surveyed (visual and PAM) by TNO for Northern Bottlenose whales in June 2011. See Kvadsheim et al 2011 for survey effort and 2.1 for description of 3S-project. Previous experiments have

been further analysed and presented/published (see below).

References:

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von Benda-Beckmann AM, Rankin S, Beerens SP, van Zon AT, Lam FPA (2011) Comparative study of towed array baselines for instantaneous localization of marine mammals. Abstract submitted to DCLDE workshop, Oregon, Aug.2011.

POLAND

The project on "Active Protection of Harbour Porpoises against Bycatch" in the Puck Bay was terminated. The preliminary results of hydroacoustic research with the use of POD devices showed that the Puck Bay is the area where porpoises are abundant, mostly in winter and spring months.

Moreover, Poland participates in the SAMBAH (Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise) Project which is implemented on the Polish side by the Chief Inspectorate of Environmental Protection, the Marine Division of the Institute of Meteorology and Water Management and the Hel Marine Station. The termination of the project is scheduled in 2014.

Under way is a 4-year project (2009–2012) "Support for Restoration and Protection of Baltic Mammals" carried out by WWF Poland. In the frame of the project a year-round monitoring of the coastal area is conducted with participation of volunteers trained by the Hel Marine Station (so called "Blue Patrol"), as well as the educational action concerning the methods of porpoises and seals conservation. The project is co-financed by the programme "Infrastructure and Environment". The structural partners of the project are the Hel Marine Station and the Foundation of Development of the University of Gdańsk.

SWEDEN

A Life Nature application for the SAMBAH project was approved and the Grant Agreement was signed in November 2009 by Kolmården Wildlife Park as the Coordinating Beneficiary. This project is running over five years (2010–2014), and aims at producing an estimate of the total abundance and distribution of harbour porpoises in the Baltic Sea. Three of the countries around the Baltic Sea (Finland, Poland and Denmark) are associated Beneficiaries, whereas the Baltic states are subcontractors to Sweden, and Germany cooperates with SAMBAH using national funding. The project is based upon data from passive acoustic porpoise echolocation loggers, which will be kept in operation during 2011 to 2012. This data will be used as input to state of the art population density statistics, and

subsequently allow for habitat modelling carried out by AquaBiota Water Research.

The 2010 year's national report described a genetic study of population structure of harbour porpoise in the Baltic Sea by Per Palsböll (formerly at Stockholm University but now at University of Groningen). Further results may be reported in the next few years.

UNITED KINGDOM

The Sea Mammal Research Unit has used spatial modelling to estimate abundance and explore species-habitat relationships of cetaceans in European Atlantic waters. The analysis combined data from SCANS-II (surveyed in 2005), CODA (surveyed in 2007) and the Faroes block of TNASS (surveyed in 2007). Species for which abundance could be estimated were: harbour porpoise (*Phocoena phocoena*), white-beaked dolphin, white-sided dolphin, bottlenose dolphin, short-beaked common dolphin, striped dolphin, long-finned pilot whale, minke whale, fin whale, sperm whale, and all beaked whale species combined. Preliminary results were presented in December 2011 to the Biennial Conference on Marine Mammal Biology in Tampa. Recently discovered minor issues with the processing of the SCANS-II and CODA data, which are currently being addressed, will alter the results very slightly. The final results will be available later this year.

Wales

Annual monitoring of bottlenose dolphin and harbour porpoise populations continued in Cardigan Bay, West Wales using photo-ID (bottlenose dolphin) and line transect survey (both species) (Veneruso & Evans, 2012). After earlier (2001-07) increases, abundance estimates of the bottlenose dolphin population of Cardigan Bay Special Area of Conservation show a general decline. In 2011, the overall Cardigan Bay abundance estimate for bottlenose dolphin was 296 (CV=28.8) and for harbour porpoise was 990 (CV=27.1), from line transect surveys. Life history parameters measured from photo-ID for bottlenose dolphin indicate a mean annual birth rate of between 5.2% and 7.7% (2001-11) depending upon whether a closed or open population model is adopted; an inter-calf interval ranging from 2-5 years, with 3 years being the most common; and calf mortality rates of 20.4% (year 1), 24.5% (year 2), and 10.2% (year 3) (Veneruso & Evans, 2012). Bottlenose dolphins from Cardigan Bay disperse in winter and generally move northwards in November to waters between Anglesey and the Isle of Man (and probably beyond) where they largely remain until the following April (Veneruso & Evans, 2012). Acoustic studies using T-PODs and C-PODs have been undertaken between 2009-12 (Hanna Nuuttila, PhD student, University of Bangor), extending other acoustic monitoring & research by SWF within Cardigan Bay SAC (Simon et al., 2010; Meier, 2010; Nurminen, 2010; Wahlberg et al., 2011).

Jersey

In Jersey the marine biology section of the Societe Jersiaise receive and collate information from the public concerning cetacean sightings. This data is available online. Sighting data is also recorded by the States of Jersey Fisheries Protection Vessel. Dolphins were sighted on 18 separate occasions in 2011. This was a decrease on 2010's figures, but still higher than most previous years and above the 10 year average (Fig. 10). All sightings were identified as bottlenose dolphins. Sightings occurred mainly to the north, east and south of the Island ranging from Les Écréhous in the north to Les Minquiers in the south. In total 124 adult dolphins and 15 Juveniles were observed. Juveniles represented 12% of sightings in 2011, compared to 9% in 2010, 10% in 2009 and just 3% in 2008. Pattern and frequency of patrols was reduced in 2011, with days at sea slightly less than in 2010 due to section re-structuring.

4.2 New Technological Developments

BELGIUM
None
DENMARK
<p>A FastLoc GPS incl. 3D behavioural data logger package have been developed and deployed on two harbour porpoises. This is the first time such detailed behavior has been recorded from a small cetacean. In addition, 6 porpoises were tagged with acoustic tags (A-tags) in combination with Argos satellite tags. An additional 2 porpoises were tagged with satellite tags.</p> <p>The Danish National Institute for Aquatic Resources also conducted a trial of CCTV equipment to monitor catches onboard gillnet vessels of length 10-14 m. The equipment worked well and was used to document not only fish discards but also bycatch of marine mammals and seabirds. All this was obtained at a much lower cost than using onboard observers. Using a camera tracking the nets while breaking the water during hauling documented that a number of porpoises fell out of the nets before being detected by the people on deck.</p> <p>Two trials were made to determine the threshold for temporary threshold shift development in the hearing system of wild harbour porpoises when exposed to an air-gun (and pile driving-like) sound source. The project is funded and coordinated by Professor Ursula Siebert, Forschungs- und Technologiezentrum Büsum, Germany, Ursula.Siebert@tiho-hannover.de) but also has a Danish partner (Jonas Teilmann, Aarhus University, jte@dmu.dk). Results from the project will be available in 2012 or 2013.</p>
FINLAND
None
FRANCE
<p>Trials of a passive acoustic monitoring in the archipelago of Molène on the resident group of bottlenose dolphins (Iroise Sea MPA/ENSIETA/Oceanopolis). The goal is to implement a permanent acoustic monitoring in addition to line transects and photo-identification</p>
GERMANY
<p>The COSAMM project is an investigation of the comparability of the various static passive acoustic monitoring methods used for detection of harbour porpoises and other toothed whales. All available click detectors for harbour porpoises are compared in this project. This is done in order to make representative and comparable statements on the abundance of harbour porpoise, despite the deployment of different devices. [Gallus, DMM]</p> <p>A new technical design for an air bubble curtain system was developed and tested in 2010 by the ITAW in cooperation with FH Kiel. This system is intended to be used as a sound mitigation method during pile driving installations of offshore wind turbines. [Siebert, ITAW]</p> <p>The impact of devices attached to animals remains a challenge in telemetry studies of dolphins. A concept of novel tag design for small cetaceans was elaborated and tested using computer aided design and computer fluid dynamics methods. It was hypothesized that the hydrodynamic design of a tag could provide stable attachment to the dorsal fin by means of resultant hydrodynamic force appearing when a dolphin is swimming. It was shown that in 33 of 35 CFD scenarios the streamlined shape of a tag generates the lift force that facilitates keeping a tag attached to the fin. Throughout the set of calculations the tag-associated drag coefficient does not exceed 4%, which indicates low impact. Data obtained present a</p>

baseline for the further development of non-invasive dolphin telemetry tags. [Siebert, ITAW]
LITHUANIA
NETHERLANDS
TNO has built and tested improvements of the acoustic marine mammal detection array <i>Delphinus</i> . This new configuration was first tested at sea along the Norwegian coast in Feb.2011 in advance of the 3S-2011 BRS experiment, see also 2.1. Improvements include a longer baseline of high frequency hydrophones, in order to better estimate direction and range of detected sounds. Also a prototype triplet-hydrophone has been designed to be integrated in the <i>Delphinus</i> towed array. This triplet should be capable to discriminate between the leftward/rightward detection of mammal sounds. Software of the <i>Delphinus</i> system has been upgraded to display detection of marine mammals in a geographical display in real time.
POLAND
In the course of research on monitoring of porpoise presence by use of POD devices under the Hel Marine Station project "Active Protection of Harbour Porpoises against Bycatch" the special software named HEL1 Classifier was created. The software is improving data analysis process and shortening the time used by experts for the evaluation of visual picture of hydroacoustic detections. The software was created on the basis of data gathered under the project. The software is especially useful in the areas where the density of individuals and the number of positive detection are low and where each false detection is reducing the value of results. The new software was developed by a multinational team: Nick Tregenza (UK), Daniel Wennerberg (Sweden), Cinthia Ljungqvist (Sweden), Sophie Hansen (Germany), Kathrin Krügel (Germany), Radomił Koza (Poland) and Monika Kosecka (Poland). http://www.chelonia.co.uk/downloads/CPOD.exe
SWEDEN
Nothing to report
UNITED KINGDOM
SWF is working with the University of Bangor's SEACAMS Project to develop a hand-held device with software application for easy logging and retrieval of sightings & effort data for boat operators. This is being tested out first with a sample of wildlife trip operators in Wales.

4.3 Other Relevant Research

BELGIUM
In the implementation of part of the North Sea Conservation Plan, the FOD Public Health, Food Safety and Environment, DG Environment, Marine Environment, funded a short-term project (2010-2011, 3 months) on the investigation of the diet (using stomach contents) of harbour porpoises stranded in Belgium. In the project a reference collection of otoliths and other fish bones was initiated, a methodology was described and 24 stomach contents of harbour porpoises were analyzed. Around 50 more stomach contents will be analyzed during a follow-up project in 2012 (funded by the FOD Public Health, Food Safety and Environment, DG Environment, Marine Environment). Haelters, J., Kerckhof, F., Verheyen, D. & Jauniaux, T., 2011. The diet of harbour porpoises bycaught or washed

ashore in Belgium: exploratory study and results of initial analyses. Royal Belgian Institute of Natural Sciences (MUMM), Brussels. Report funded by the Federal Public Service for Health, Food Chain Safety and Environment (DG5 – Marine Environment), in the framework of the ASCOBANS North Sea Harbour Porpoise Conservation Plan. 29 p.

DENMARK

The Danish National Institute for Aquatic Resources conducted research on the range at which pingers are effectively deterring harbour porpoises. Experiments with an Aquamark100 pinger at Reersø, Denmark, suggested an effect out to at least 1600 m, while a similar experiment in St Andrews Bay, Scotland, suggested an effect to only 400 m.

Tissue healing in porpoises in relation to satellite tagging has been investigated: Sonne, C., Teilmann, J., Wright, A. J., Dietz, R., Leifsson, P. S. 2012. Tissue healing in two harbor porpoises (*Phocoena phocoena*) following long-term satellite transmitter attachment. *Marine Mammal Science*, in press.

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Research into the correlation of porpoise and prey fish distributions: Sveegaard, S., Teilmann, J., Andreasen, H., Mouritsen, K. N., Jeppesen, J. P., Kinze, C. C. 2012. Correlation between the seasonal distribution of harbour porpoises and their prey in the Sound, Baltic Sea. *Marine Biology*, in press. • Studies of the impact of wind farms on porpoises:

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Geographic variation of harbor porpoise skull shape and ontogeny: Galatius, A., Goldin, P. 2011. Geographic variation of skeletal ontogeny and skull shape in the harbour porpoise (*Phocoena phocoena*). *Canadian Journal of Zoology* 89, 869-879.

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Study of how porpoises react to gillnets: Nielsen, T. P., Wahlberg, M., Heikillä, S., Jensen, M., Sabinsky, P., Dabelsteen, T. 2012. Swimming patterns of wild harbour porpoises

(*Phocoena phocoena*) show detection and avoidance of gill nets at very long ranges. Marine Ecology Progress Series, in press.

New measurements of the sound beam pattern of porpoises: Koblitz, J., Wahlberg, M., Stilz, P., Madsen, P., Beedholm, K., Schnitzler, H.-U. 2012. Asymmetry and dynamics of a narrow sonar beam in an echolocating harbour porpoise. Journal of the Acoustical Society of America, in press.

FINLAND

FRANCE

GERMANY

Since January 2010 a net of POD-stations each consisting of four marking buoys and three POD-devices was established by offshore wind farm operating companies to fulfil the licencing conditions of BSH and StUK according to which acoustic monitoring of the activity and habitat use of harbour porpoises is required for all EIAs and monitoring activities for Offshore wind farms (<http://www.bsh.de/en/Products/Books/Standard/index.jsp>). The main objective of the POD-net is the continuous monitoring of gradients in the habitat use and activity of harbour porpoises. By the end of 2011 the POD-net was extended to 22 stations. Up to now positive experiences could be gathered with the POD-net. The data evaluation and analysis will follow. [Boethling, BSH]

Predictive models of harbour porpoise distribution to assess the extent of potential conflicts and to support conservation and management plans were developed. A range of oceanographic parameters and generalised additive models were used to predict harbour porpoise density and to investigate seasonal shifts in porpoise distribution in relation to several static and dynamic predictors. Porpoises aggregated in distinct hot spots within their seasonal range, but the importance of key habitat descriptors varied between seasons. Predictors explaining most of the variance were the hydrographical parameter 'residual current' and proxies for primary production and fronts (chlorophyll and nutrients) as well as the interaction 'distance to coast/water depth'. Porpoises preferred areas with stronger currents and concentrated in areas where fronts are likely. These models improve the understanding of determinants of harbour porpoise habitat in the North Sea as a whole and inform management frameworks to determine safe limits of anthropogenic impacts (see: Gilles et al. 2011, Endangered Species Research), [Siebert, ITAW]

Project name DFG SI 1542/1, a part of the DFG-SPP-1207; „Strömungsbeeinflussung in Natur und Technik“ program. Morphology of dolphin skin and its potential role in drag reduction of swimming dolphin was studied. Computer aided design models of common dolphin and harbour porpoise were constructed to study hydrodynamics of fast- and slow swimming small cetaceans. Flow parameters were calculated for the species-specific range of swimming velocities. Correlation between skin structure and stream-wise distribution of friction coefficient was found. The data obtained can be used in further development of compliant walls to reduce friction drag in transport. [Siebert, ITAW]

Collection of information about incidental strandings and opportunistic sightings is continued [Czeck, NP-LS]

A study about the classification of marine mammal acoustic 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. [Puffpaff, BMVg]

A new hydrophone system for passive acoustic monitoring was tested during sea trials. [Puffpaff, BMVg]
LITHUANIA
NETHERLANDS
POLAND
No other research
SWEDEN
A study on environmental contaminants in harbour porpoises from Swedish waters is carried out by the SMNH. In addition, cooperation has started between the SMNH and the National Veterinary Institute (SVA). This study focuses on health status of harbour porpoises, cause of death, occurrence of parasites etc. Usually some 10 to 15 porpoises per year are necropsied. Results from these studies are planned to be reported in 2012.
UNITED KINGDOM
<p>Joint Cetacean Protocol (JCP)</p> <p>The JCP was first introduced at the 2007 AC meeting and welcomed again in 2009 as part of improvements in approach to assessments. The JCP will deliver information on the distribution, abundance and population trends of cetacean species occurring in NW European waters. It is intended that the project outputs will assist governmental reporting to various Directives (e.g. the Habitats Directive and the Marine Strategy Framework Directive) and will also improve the robustness of marine Environmental Impact Assessments.</p> <p>The JCP brings together effort-related cetacean sightings data from a variety of sources including large scale international surveys such as SCANS I & II and CODA, surveys based on platforms of opportunity such as ICES International Bottom Trawl Surveys (European Seabirds at Sea (ESAS) cetacean data), as well as more localised non-governmental data (e.g. SeaWatch Foundation and ARC) and industry data (e.g. that collected in relation to potential renewable energy installations). These data, collected between 1979 and 2010, represent the largest NW European cetacean sightings resource ever collated and have been standardised to a common format, checked and cleaned. It should be noted that the JCP is heavily dominated by UK lead survey work. Other sources should be encouraged to join JCP in the future, notably from waters other than UK similarly collected from dedicated surveys or platforms of opportunity.</p> <p>For harbour porpoises, bottlenose dolphins and common dolphins in the Irish Sea, Paxton & Thomas (2010) reported that quite small declines in modelled population density (0.3-2.2% per year) over a 6-year reporting period could be detected with power of 0.8, for the latter part of the survey period. For other species and earlier time periods, only very large changes in modelled population density would be detectable. However, the modelled population densities rely on spatial and temporal smoothing, and hence sudden declines would not necessarily be detectable.</p> <p>The models developed by Paxton & Thomas (2010) have been further refined and expanded to include the Scottish west coast (Paxton et al, 2011). Density surfaces varying in time were generated for harbour porpoise, minke whale, bottlenose dolphin, short-beaked common dolphin and white-beaked dolphins; with a non-temporal model used for Risso's dolphin. The density surfaces proved complex to model and some bootstrap confidence intervals were</p>

very wide especially in areas of low effort and associated with high predictions.

For harbour porpoises, monthly abundances were found to peak in August and there is evidence for a strong temporal trend. Estimated numbers fluctuated in their high season (summer) between 10,200 (CI: 5,500 – 17,700, CV: 0.30) in 1991 and 107,900 (CI: 87,800 – 142,000, CV: 0.13) in 2005. The imprecise estimates for 1985 are associated with low effort leading to a high uncertainty, otherwise in this Poisson model, uncertainty is associated with larger estimated numbers.

The outputs of the JCP project covering the European North Atlantic area are expected later in 2012 will include:

- Annual estimates of species specific cetacean abundance (with 95% confidence intervals) at a Regional Seas scale, suitable for Habitats Directive and MSFD reporting.
- Species specific summary datasets depicting cetacean distribution and relative abundance at a range of resolutions with advice on the most robust resolution. Where there is sufficient data, density surface plots will be produced for each season annually, with an assessment of trends over time and the power to detect these trends. It is expected that the power to detect trends over this area are unlikely to be as high as those reported for the Irish Sea subset in Paxton & Thomas (2010).

The European Commission has recently published its guidance for Article 17 reporting under the Habitats Directive (FCS) in 2013. Following feedback from various Member States and ICES (2009) on the 2007 reporting round for cetaceans, there is a much greater emphasis on the need for transboundary reports for relevant species. It is likely that the outputs of the JCP will provide the necessary distribution and abundance information for the compilation of transboundary reports.

Paxman, C. & Thomas, L., 2010. Phase One Data Analysis of Joint Cetacean Protocol Data. Available at: http://jncc.defra.gov.uk/pdf/JCP_Phase_1_Analysis.pdf

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

Land-based effort related watches were conducted at sites around the UK as part of Sea Watch Foundation's (SWF) national observer network that has been running since the 1970s. Surveys using a mixture of chartered vessels and platforms of opportunity were undertaken (some in collaboration with other bodies) in the central North Sea, inshore waters of East Scotland, Northern Isles, Hebrides, and Irish Sea. Regional analyses/reviews were undertaken for the Thames Estuary region, Grampian region (Anderwald et al., 2010), Orkney (Evans & Baines, 2010), and the Irish Sea (Baines & Evans, 2012).

SWF holds Photo-ID catalogues for the following species: minke whale, humpback whale, killer whale, bottlenose dolphin, and Risso's dolphin, with small numbers of ID images (<20 per species) also for fin whale, short-beaked common dolphin, and white-beaked dolphin. Additions were made to all these catalogues during 2011, whilst publications involving analyses of photo-ID data include Cheney et al. (2012) and Veneruso & Evans (2012).

Habitat modelling and spatial analyses were undertaken on various species: harbour porpoise (Coomber, 2011; Isojunno et al., 2012), bottlenose dolphin (Meatcher, 2010), and minke whale (Anderwald et al., 2011b, 2012).

Studies and recommendations for methodologies for monitoring & surveillance were also undertaken (Davis, 2010; Evans, 2011b; Evans & Thomas, 2011).

An analysis of by-catch risk for cetaceans in Welsh waters was conducted (Evans & Hintner, 2010), and sensitivity indices developed (Evans, 2011).

The Whale and Dolphin Conservation Society (WDCS) continues Risso's Dolphin Photo-ID studies in waters off the UK's west coast, focused around Bardsey Island in North Wales and the Isle of Lewis in the Western Isles of Scotland. Collaborations exist with CCW, Sea Watch Foundation and Manx Whale and Dolphin Watch in Wales and with local communities and the Hebridean Whale and Dolphin Trust (HWDT) in Scotland.

A study was undertaken in West Wales examining long-term trends in recreational boat activity in relation to trends in bottlenose dolphin sightings rates. Areas with the highest densities of boat traffic experienced declines in bottlenose dolphin sightings rates (Lohrengel et al., 2012; Veneruso & Evans, 2012).

A risk analysis of vessel strikes was undertaken throughout the ASCOBANS Agreement Area using VOS ship data and effort-related cetacean sighting rates derived from multiple data sources (including SCANS II & CODA), found highest potential overlap between cetaceans (particularly large whales) and vessels in the Bay of Biscay (Evans et al., 2011).

Genetic studies using mtDNA and microsatellites of North Atlantic minke whales indicate two sympatric yet genetically distinct populations (Anderwald et al., 2011a). The implication is that minke whales range extensively across the North Atlantic seasonally but segregate to some extent on at least two distinct breeding grounds.

Anderwald, P., Danielsdottir, A.K., Haug, T., Larsen, F., Lesage, V., Reid, R.J., Vikingsson, G.A. and Hoelzel, A.R.

(2011) Possible cryptic stock structure for minke whales in the North Atlantic; implications for conservation and management. *Biological Conservation*, 144(10): 2479-2489.

Jersey

Jersey continues to participate in the NHM's strandings programme. Two acoustic receivers have been set by Groupe d'Etude des Cetaces du Cotentin, at Les Minquiers reef as part of a wider study in the Normano-Breton gulf. An aerial survey has also been planned as part of the Marine Park project. This survey will occur in 2012.

C. USE OF BY-CATCHES AND STRANDINGS

5 POST-MORTEM RESEARCH SCHEMES

BELGIUM
Contact details of research institutions / focal point
No new information since the 2009 report
Methodology used (reference, e.g. publication, protocol)
Collection of samples (type, preservation method)
Database (Number of data sets by species, years covered, software used, online access)

Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
DENMARK
Contact details of research institutions / focal point
<ul style="list-style-type: none"> • Department of Bioscience, Aarhus University, Frederiksborgvej 399, 4000 Roskilde, Denmark. Phone +4528710372, email: <i>agj@dmu.dk</i> • The Fisheries and Maritime Museum, Tarphagevej 2, 6710 Esbjerg V, Denmark. Phone +4576122000, email: <i>lfj@fimus.dk</i>
Methodology used (reference, e.g. publication, protocol)
We use our standard protocol, which has not been published
Collection of samples (type, preservation method)
<p>Aarhus University: Teeth, muscle, skin, blubber, liver, kidney, stomach contents, urine, blood, spleen, gonads, lung, diaphragm, faeces</p> <ul style="list-style-type: none"> • The Fisheries and Maritime Museum: some of the above.
Database (Number of data sets by species, years covered, software used, online access)
A database is planned. No online access.
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
<p>Strandings of marine mammals are reported on an annual basis in a report (in Danish) from the Danish Nature Agency. The latest available report covers 2010:</p> <p>http://www.naturstyrelsen.dk/Udgivelser/Aarstal/2011/Strandede_havpattedyr_i_Danmark.htm</p> <p>Future reports will be uploaded at:</p> <p>http://www.naturstyrelsen.dk/Udgivelser/Aarstal/</p>

FINLAND
Contact details of research institutions / focal point
Methodology used (reference, e.g. publication, protocol)
Collection of samples (type, preservation method)
Database (Number of data sets by species, years covered, software used, online access)
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
FRANCE
Contact details of research institutions / focal point
<p>The French stranding network is nationally coordinated by PELAGIS/ULR under an agreement with the Ministry in charge of the Environment. Local voluntary observers, generally under local supervision by various institutions or NGOs (Oceanopolis, GEFMA, GECC, GMN, OCEAM, CMNS, Picardie Nature, ONCFS...), have been trained to process stranded cetaceans under a common standardized protocol. An annual synthesis of all strandings reported in France is produced by PELAGIS/ULR. Statistics of stranding for the coasts of France in the ASCOBANS region in 2011 indicate more than 487 cetaceans reported (2012 compilation not yet available; PELAGIS/ULR and all National Stranding Scheme field correspondents). Stranding data provides information on mortality causes, demographic structure (age and reproductive status), diet (stomach content), trophic levels (stable isotopes) and subpopulation structure or movement pattern (stable isotopes, heavy metals and contaminants).</p> <p>Observatoire PELAGIS/ULR, Université de La Rochelle, La Rochelle PELAGIS/ULR /ULR willy.dabin@univ-lr.fr</p>
Methodology used (reference, e.g. publication, protocol)
Standardized protocol derived from ECS necropsy workshop 2005 (Jauniaux, T. Beans, C; and Dabin W. 2005. Stranding, Necropsy and sampling: Collection data, sampling level end techniques)

Collection of samples (type, preservation method)
Biodemographics samples : gonads (formalin) and teeth (frozen) Diet and feeding ecology: stomach contents (frozen) and blubber fatty acids and stable isotope (frozen) Genetics: skin and kidney (frozen and alcohol) Toxicologic: heavy metal and POP's analysis on muscle, liver and kidney (frozen with specific packaging) Parasitology (alcohol) Histopathology (formalin) Bacteriology and virology (frozen)
Database (Number of data sets by species, years covered, software used, online access)
Access 2000 data base since 1972 with 16994 stranding recorded with 2968 individuals sampled
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
http://crrm.univ-lr.fr/ with interactive stranding maps
GERMANY
Contact details of research institutions / focal point
Schleswig-Holstein (SH): Terrestrial and Aquatic Wildlife Research (ITAW) of 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 Lower Saxony (LS): National Park Authority, LAVES-Institute for Fish & Fishery Products Cuxhaven (only district of Cuxhaven)
Methodology used (reference, e.g. publication, protocol)
SH: Measurements were taken in metric system. No funding for necropsies MV: Basic biological and anatomical data were collected and registered. Necropsy is performed occasionally. LS: metric measurements were taken of carcasses found by official bodies in the area of Cuxhaven. Necropsies will be performed due to the carcass condition. No necropsies in 2011
Collection of samples (type, preservation method)
SH: No funding for sampling. MV: Pathological samples will be collected and examined during necropsy if required. LS: No samples could be taken from carcasses in 2011 due to decomposition.
Database (Number of data sets by species, years covered, software used, online access)
SH: MySql, Postgresql, Access, Excel Between 1990 and 2011 the following number of data sets has been collected per species (data recorded until 15.02.12): <i>Phocoena phocoena</i> : 2982

<p><i>Delphinus delphis</i>: 7 <i>Lagenorhynchus albirostris</i>: 26 <i>Lagenorhynchus acutus</i>: 2 <i>Stenella caeruleoalba</i>: 1 <i>Delphinapterus leucas</i>: 1 <i>Delphinapterus ampullatus</i>: 1 <i>Physeter macrocephalus</i>: 7 <i>Balaenoptera acutorostrata</i>: 6 <i>Balaenoptera physalus</i>: 6 <i>Globicephala melaena</i>: 3 <i>Tursiops truncatus</i>: 1 <i>Mesoplodon bidens</i>: 1</p> <p>MV: Data were collected and registered in Access database and Excel. Between 1990 and 2011 468 dead harbour porpoises were found at the coasts of MV, 33 harbour porpoises in 2011.</p> <p>LS: Metric data on carcasses found were collected and registered for report to ASCOBANS. 55 carcasses of harbour porpoises were registered in LS in 2011.</p>
<p>Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)</p>
<p>MV: The German Oceanographic Museum is collecting information about incidental strandings and sightings (see at http://www.meeresmuseum.de/wissenschaft.html)</p>
<p>LITHUANIA</p>
<p>Contact details of research institutions / focal point</p>
<p>Methodology used (reference, e.g. publication, protocol)</p>
<p>Collection of samples (type, preservation method)</p>
<p>Database (Number of data sets by species, years covered, software used, online access)</p>
<p>Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)</p>

NETHERLANDS
Contact details of research institutions / focal point
Department of Pathobiology, Faculty of Veterinary Medicine, Utrecht University, Yalelaan 1, 3584 CL Utrecht, 030 253 3591
Methodology used (reference, e.g. publication, protocol)
Adapted from: T. Kuiken, Diagnosis of By-Catch in Cetaceans, Proceedings of the 2nd BCS Workshop on Cetacean Pathology, Montpellier, France 1994. European Cetacean Society Newsletter, 26:38-43 and protocols provided by Jauniaux and Siebert
Collection of samples (type, preservation method)
Depending on conservation state: 1. a variety of specific organs/tissues or tissues with pathologic changes, formalin-fixed, paraffin-embedded 2. gastric contents (frozen handed to Imares) 3. liver, fat and muscle (-20) 4. skin (ethanol) 5. teeth (water)
Database (Number of data sets by species, years covered, software used, online access)
Excel, Access
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
All strandings are collated in a database and shown on the website of Naturalis (www.walvisstrandingen.nl). In 2011 849 Harbour Porpoises, 4 White-beaked Dolphins, 1 white-beaked or white-sided dolphin, 1 Short-beaked Common Dolphin, 1 Minke Whale, 2 sperm whales (1 subfossil vertebra, 1 live pushed back), 1 Sowerby's Beaked Whale (vertebra), 1 fin whale were registered.
POLAND
Contact details of research institutions / focal point
Hel Marine Station, Institute of Oceanography, University of Gdańsk Iwona Pawliczka, iwona.pvp@ug.edu.pl
Methodology used (reference, e.g. publication, protocol)
Post-mortem analyses are being conducted according to procedures described in: Kuiken, T. and Hartmann, M.G. (1993). Dissection techniques and tissue sampling. Proceedings of the ECS Workshop, Leiden.

Collection of samples (type, preservation method)
<p>The Hel Marine Station, Institute of Oceanography, University of Gdańsk collects, as part of its statutory activity, data on dead porpoises and dolphins from either bycatch or stranded onshore.</p> <p>The dead specimens, upon their arrival at the Station, are being subject to analyses within the scope limited by the status of the remains. The standard scope of sampling covers:</p> <ul style="list-style-type: none"> -Species determination; -Localization of deadly event; -Establishing factual and supposed cause of death; - Ascertaining of the body length and mass; -Sex ascertaining; -Fat tissue sampling for genetic examination; -Teeth sampling for age determination; -A full post-mortem analysis and storage of biological samples according to Kuiken &Hartmann, 1993.
Database (Number of data sets by species, years covered, software used, online access)
Data have been entered into the standard Access database since 1988. There is no on-line access to this base.
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
SWEDEN
Contact details of research institutions / focal point
Anna Roos, Department of Contaminant research, Swedish Museum of Natural History, PO Box 50007, SE-104 05 Stockholm. anna.roos@nrm.se
Methodology used (reference, e.g. publication, protocol)
Using a common protocol made for cetaceans
Collection of samples (type, preservation method)
<p>The Baltic Sea, up to Skanör/Måkläppen: Basically samples from all carcasses were collected, and if the carcass was not too rotten the SMNH made a full autopsy. Skin, blubber, muscular tissue, kidney, liver, brain, lung, spleen, stomach, intestines teeth etc. are taken and stored deep frozen in the SMNH's Environmental Specimen Bank (ESB).</p> <p>Nine porpoises were found in 2011 and autopsied by pathologists at SVA together with personnel from the SMNH. All of the carcasses were from the Baltic Sea (including the Kattegat). In addition, eleven stranded porpoises were sampled by the GNM. Samples</p>

(dorsal fin, blubber, lower jaw) were sent to the ESB. Seven of the specimen originated from the Baltic Sea.
Database (Number of data sets by species, years covered, software used, online access)
<p>The SMNH has a database of porpoise samples from 1972 until today, and consist of more than 700 specimens.</p> <p>Software: MySQL. No online access yet.</p> <p>Data include: species, location, cause of death, blubber thickness (several places), length, weight, weight of several organs etc.</p> <p>The SMNH also has a database on reported live (and dead) animals, all published on line at www.nrm.se/tumlare.</p>
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
<p>The SMNH host a web page where the public can report sightings of live porpoises: www.nrm.se/tumlare.</p>
UNITED KINGDOM
Contact details of research institutions / focal point
<p>UK Cetacean Strandings Investigation Programme (CSIP).</p> <p>Contact point- Rob Deaville, Institute of Zoology, Regents Park, London, NW1 4RY, ENGLAND.</p> <p>rob.deaville@ioz.ac.uk</p> <p>www.ukstrandings.org</p> <p>Countryside Council for Wales - Dr Mandy McMath, Senior Marine Vertebrate Ecologist</p>
<p>Countryside Council for Wales (CCW)</p> <p>Dr Mandy McMath, Senior Marine Vertebrate Ecologist</p>
Methodology used (reference, e.g. publication, protocol)
<p>Methodology in Deaville and Jepson et al (2011) followed;</p> <p>Deaville and Jepson (compilers) (2011) CSIP Final Report for the period 1st January 2005-31st December 2010. Pp 1-98</p> <p>http://randd.defra.gov.uk/Document.aspx?Document=FinalCSIPReport2005-2010_finalversion061211released[1].pdf</p>
Collection of samples (type, preservation method)
<p>A range of samples are routinely collected according to the method of Deaville and Jepson et al (2011). A variety of tissues are routinely sampled for any bacteriological, virological and/or histopathological investigations when deemed appropriate. Any non-routine samples are also collected as necessary. A number of preservation methods are employed;</p>

<ul style="list-style-type: none"> •stored frozen at -20oC or -80oC; •stored in 70% ethanol (parasites); •or in 10% buffered formalin (fixed samples) <p>In addition to the strandings co-coordinators funded by Defra, the Welsh Assembly Government continues its funding of the Welsh Strandings Co-ordinator in conjunction with CCW. The cetacean most commonly found stranded on the Welsh coast is the harbour porpoise and the most common cause of death for this species is from attack by bottlenose dolphins.</p>
<p>In addition to the strandings co-coordinators funded by Defra, the Welsh Assembly Government continues its funding of the Welsh Strandings Co-ordinator in conjunction with CCW. The cetacean most commonly found stranded on the Welsh coast is the harbour porpoise and the most common cause of death for this species is from attack by bottlenose dolphins</p>
<p>Database (Number of data sets by species, years covered, software used, online access)</p>
<p>The CSIP holds data on nearly 10500 cetaceans which were reported stranded around the UK between 1990 and 2011. In addition, detailed pathological data is also held on over 3000 UK stranded cetaceans which were necropsied by the CSIP during the same period. Data collected on strandings and during necropsies are routinely recorded in a web-accessed relational database (http://data.ukstrandings.org). A proportion of data held on this system is also made available to the public via a Defra funded portal, the NBN gateway (www.nbn.org.uk/).</p>
<p>Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)</p>
<p>Further information on the CSIP is available at www.ukstrandings.org. Intellectual property rights to the data directly generated as a result of CSIP research belong to Defra. At the ASCOBANS AC meeting in Bonn in 2010, the ASCOBANS Secretariat agreed to fund IoZ to co-ordinate a feasibility study into the creation of a centralised point of access for selected data collected by stranding networks within the ASCOBANS region (Project ref: SSFA/ASCOBANS/2010/2). The project report on this feasibility study has been recently submitted to the Secretariat and it is hoped that this will be the first step towards the eventual creation of a central database on strandings and necropsies, encompassing ASCOBANS Parties and Range states.</p>

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
BELGIUM	
<i>Lagenorhynchus albirostris</i> (1)	A live stranded white-beaked dolphin was euthanized. It was severely injured, and had a.o. a partly amputated pectoral fin, suggesting that it had been caught in fishing gear.
<i>Phocoena phocoena</i> (+50)	The total number of harbour porpoises, including stranded animals but excluding dead animals found at sea, was 116. Detailed data are not available yet, but at least 11 harbour porpoises had died due to bycatch in fishing gear. A large proportion of the stranded animals was in a condition not allowing to draw conclusions about the cause of death.

Compilation of Annual National Reports to ASCOBANS 2011

DENMARK	
Harbour porpoise, N= 4	1 bycaught, 3 not yet determined
Whitebeaked dolphin, N=2	Not yet determined
FINLAND	
	None
FRANCE	
<i>Delphinus delphis</i>	70 necropsies
<i>Phocoena phocoena</i>	28
<i>Stenella coeruleoalba</i>	21
<i>Tursiops truncatus</i>	5
<i>Grampus griseus</i>	4
<i>Globicephala melaa</i>	2
<i>Globicephala macrorhyncus</i>	1
<i>Balaenoptera physalus</i>	2
<i>Balaenoptera acutorostrata</i>	1
<i>Physeter macrocephalus</i>	1
GERMANY	
<i>Phocoena phocoena</i>	<p>SH: No funding for determination of causes of death</p> <p>MV: 4 necropsies in 2010, 5 in 2011. Recorded strandings only partially to be necropsied; recorded cause of death: drowned, parasitic diseases, bacterial infection, pneumonia, dystocia</p> <p>LS: metric measurements were taken of carcasses found and reported by official bodies in the area of Cuxhaven. Necropsies will be performed due to the carcass condition. No necropsies in 2011.</p>
LITHUANIA	

NETHERLANDS					
Harbour porpoise	<p>Between December 2010 and November 2011 274 harbour porpoises were necropsied at the Department of Pathobiology of the University of Utrecht. Of these the percentage of bycatch was between 10 and 37%. For the whole period of the study (2009 to 2011) the bycatch percentage is between 12 and 33%.</p> <p>Other causes of death included: infectious disease (21%), emaciation (19%), starvation (5%), other (5%), trauma (7%) and unknown (13%). The research is on-going, so these numbers are preliminary.</p> <p>During the research time period two peaks could be seen. In February the main cause of death was by-catch and trauma. In the summer months the main cause of death was emaciation and starvation.</p>				
POLAND					
<p>In 2011, under the Project on "Support for Restoration and Protection of Baltic Mammals" the WWF Poland and the Marine Station IOUG have been patrolling the whole Polish Baltic coast on a temporary basis and gathering the reports. The information on two cases of porpoises found onshore has been acquired.</p>					
Datum	Length	Sex	Place of finding	Sample depositing	
June 10 2011	160 cm 70 cm	Female with advanced pregnancy Fetus - female	Niechorze	Hel Marine Station of the Institute of Oceanography of the University of Gdańsk	
October 16 2011	Not determined because of advanced state of decomposition	Not determined because of advanced state of decomposition	Jantar	Hel Marine Station of the Institute of Oceanography of the University of Gdańsk	
SWEDEN					
Harbour porpoise	<p>Nine stranded animals, at least one probably by caught were found in 2011</p>				
UNITED KINGDOM					
Harbour porpoise <i>(Phocoena phocoena, n=74)</i>	<p>Pneumonia, Parasitic (n=13) Starvation (n=13) Physical Trauma (n=8) Bycatch (n=7) Bottlenose Dolphin Attack (n=7) Starvation (neonate) (n=5) Live Stranding (n=3)</p>				

	<p>Others (n=3)</p> <p>Physical Trauma, Boat/Ship Strike (n=2)</p> <p>Gastritis and/or Enteritis (n=2)</p> <p>Pneumonia, Parasitic and Bacterial (n=1)</p> <p>Pneumonia, Bacterial (n=1)</p> <p>Not Established (n=1)</p> <p>pending (n=8)</p>
<p>Short-beaked common dolphin (<i>Delphinus delphis</i>, n=31)</p>	<p>Live Stranding (n=10)</p> <p>Bycatch (n=7)</p> <p>Starvation (n=4)</p> <p>Physical Trauma (n=3)</p> <p>Physical Trauma, Boat/Ship Strike (n=2)</p> <p>Bottlenose Dolphin Attack (n=1)</p> <p>Gastritis and/or Enteritis (n=1)</p> <p>Neonatal death (n=1)</p> <p>Others (n=1)</p> <p>Pneumonia, Parasitic and Bacterial (n=1)</p>
<p>Long-finned pilot whale (<i>Globicephala melas</i>, n=18)</p>	<p>Live Stranding (n=17)</p> <p>Generalised Bacterial Infection (n=1)</p>
<p>Striped dolphin (<i>Stenella coeruleoalba</i>, n=9)</p>	<p>Live Stranding (n=4)</p> <p>Physical Trauma (n=2)</p> <p>(Meningo)encephalitis (n=2)</p> <p>Generalised Bacterial Infection (n=1)</p>
<p>Bottlenose dolphin (<i>Tursiops truncatus</i>, n=5)</p>	<p>Generalised Bacterial Infection (n=1)</p> <p>(Meningo)encephalitis (n=1)</p> <p>Starvation (neonate) (n=1)</p> <p>Others (n=1)</p> <p>Not Established (n=1)</p>
<p>White beaked dolphin (<i>Lagenorhynchus albirostris</i>, n=5)</p>	<p>Starvation (n=3)</p> <p>Live Stranding (n=2)</p>
<p>Atlantic white-sided dolphin (<i>Lagenorhynchus</i></p>	<p>Live Stranding (n=4)</p> <p>Others (n=1)</p>

<i>s acutus</i> , n=5)	
Sperm whale (<i>Physeter catodon</i> , n=3)	Starvation (n=2) pending (n=1)
Minke whale (<i>Balaenoptera acutorostrata</i> , n=2)	Entanglement (n=1) Generalised Bacterial Infection (n=1)
Fin whale (<i>Balaenoptera physalus</i> , n=2)	Starvation (n=1) Live Stranding (n=1)
Killer whale (<i>Orcinus orca</i> , n=1)	Not Established (n=1)
Sei whale (<i>Balaenoptera borealis</i> , n=1)	Live Stranding (n=1)
Sowerby's beaked whale (<i>Mesoplodon bidens</i> , n=1)	Live Stranding (n=1)
Pygmy sperm whale (<i>Kogia breviceps</i> , n=1)	Live Stranding (n=1)

NB Causes of death in some individuals are provisional and pending the results of follow up analyses. Finalised causes of death will be given in the CSIP 2011 annual report to Defra and the devolved administrations in the UK, which will be shortly published at;
<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17835&FromSearch=Y&Publisher=1&SearchText=strandings&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>

5.2 Other relevant information on post-mortem / strandings schemes

BELGIUM

The number of 116 stranded harbour porpoises during 2011 was the highest ever recorded. In contrast to a decade ago, more and more porpoises have occurred in Belgian waters during summer months of the last years, as also reflected in the number of stranded animals per month. The high number of stranded harbour porpoises was the subject of questions in the Flemish Parliament. The animals stranded during summer and autumn were mostly very decomposed, indicating that they had drifted in from far away and possibly from outside Belgian waters; they were mostly juveniles in an emaciated condition, and their stomachs were empty. At least 11 harbour porpoises had drowned in fishing gear (mostly during late

winter – early spring; provisional data), and one was presumably killed due to a ship strike in fresh water (river Scheldt). In addition to the 116 washed ashore animals, 1 harbour porpoise was found live stranded (it was returned to sea), and at least 5 harbour porpoise carcasses were found floating at sea.

Necropsy workshop

An international necropsy workshop was organized (5th *Cetacean Necropsy Workshop: special issue on cetaceans inner ear, including beaked whales*) at the university of Liège (4 to 5 July 2011). A number of harbour porpoises were autopsied, next to one beaked whale head (washed ashore in France). The main issue was the dissection of the inner ear and a demonstration of the skull morphology of cetaceans, including beaked whales.

Strandings database

A workshop was organized at the ECS Conference at Cádiz, Spain, in 2011, to discuss the feasibility and use of an ASCOBANS-wide database on strandings. Jauniaux, T., De Cauwer, K., Jacques, T., Haelters, J., Scory, S. & Coignoul, F., 2011. The Belgian Marine Mammals Network. Workshop on the interest and feasibility of a web-accessed database for marine mammals strandings and necropsy data in the ASCOBANS region. European Cetacean Society Conference, Cádiz, Spain.

DENMARK

FINLAND

FRANCE

Recent developments were aimed at improving the monitoring value of stranding data by constructing a framework for the interpretation of stranding data sets (Peltier et al. 2012 Ecological Indicators; PELAGIS/ULR) and proposing several spatial indicators (Peltier, PhD thesis, December 2011; PELAGIS/ULR). By using the drift model MOTHY (Mobilité des Hydrocarbures) initially developed by MétéoFrance it was possible to model the drift of cetacean carcasses. Model runs were conducted every 10 days over the period 1990-2009 resulting in maps of stranding probability averaged by months, seasons or the whole year; in addition, prediction of stranding under the null hypothesis were produced (here, H0 means that cetaceans and mortality are uniformly distributed in space and time). Finally, real stranding data sets of harbor porpoise and common dolphin gathered from stranding schemes of Belgium, France, the Netherlands and the United-Kingdom were used to back calculate their origin with MOTHY. Comparisons between the null hypothesis and stranding observation reveal anomalies that are the difference between expected and observed stranding data sets.

GERMANY

LITHUANIA

NETHERLANDS

Update Rapid Alert System – the Netherlands

In the last ten years, the number of stranded harbour porpoises on the Dutch coast

increased. Since 2008 also 'damaged' harbour porpoises strand on our coast, different from regular strandings. To determine the size of the problem and decide what the best solutions are, a cooperation between nature conservation organizations, rehabilitation centres, governments, researchers, fishermen and the KLPD started in 2009 and the North Sea Foundation was assigned by the Ministry of Economic Affairs, Agriculture & Innovation to bring together stakeholders, to design and coordinate a so called Rapid Alert System (RAS).

The main goal of RAS is to find solutions in case of abnormal strandings, such as peak strandings or stranding of damaged carcasses. Between 2009 and 2011 several meetings, including a big workshop in 2010, were organized to bring together stakeholders. In 2011 a very high number of harbour porpoises stranded in July and August, people from the RAS working group called for action and a stakeholder meeting was organized. The University of Utrecht together with (inter)national scientists then researched many carcasses over a week time. So far, an obvious cause of death has not been found.

To determine the origin of the stranded porpoises, a student at IMARES is currently researching whether a model of the BMM and Delft 3D model can be used for backtracking.

The Rapid Alert System has improved the communication between stakeholders substantially and in the last couple of years several activities were undertaken by stakeholders to find causes of death. There are still many questions and the RAS could be an helpful tool to find solutions. However, in 2012 there is no coordinator for the Rapid Alert System.

Reference:

Gröne, A, Begeman, L, Hiemstra S 2011. Postmortaal onderzoek van bruinvissen in Nederlandse wateren 2009 – 2011. Report for the Ministerie van Economische Zaken, Landbouw & Innovatie. Verplichtingnummer: 140000353; Relatienummer 101710.

POLAND

SWEDEN

UNITED KINGDOM

CSIP Annual Report to Defra for the period 1st January-31st December 2010

<http://randd.defra.gov.uk/Document.aspx?Document=FINALUKCSIPAnnualReport2010.pdf>

CSIP Final Report for the period 1st January 2005-31st December 2010

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

Links to both these reports can also be found on the CSIP website (www.ukstrandings.org/csip-reports/).

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

BELGIUM
<p>Offshore windfarms</p> <p>In the environmental impact assessment for the construction and operation of the Norther windfarm project (environmental permit application in 2011), MUMM took up the advice not to drive piles between January and April, the period with – at least during the last decade – the highest density of harbour porpoises in Belgian waters.</p> <p>Workshop <i>Protecting Cetaceans in the EU</i></p> <p>On 21 September 2011 a meeting was organized in the European Parliament by the S&D fraction on the protection of cetaceans. Present were a.o. Kriton Arsenis (MEP, organiser), Isabella Lövin (MEP), Maria Damanaki (European Commissioner for Maritime Affairs and Fisheries), Karl Falkenberg (Director General DG Environment), Louie Psihoyos (Director of The Cove) and Heidrun Frisch (ASCOBANS secretariat). Presentations were given by a.o. Peter Evans (ECS), Mark Simmonds (WDCS), Alex Gillespie (World Heritage Convention), Giuseppe Notarbartolo di Sciara (ACCOBAMS/IUCN) and Ludwig Kramer (Client Earth, professor at the Europacollege Brugge and UCL). During the meeting, M.Damanaki extensively reported on the analysis of the EC Regulation 812/2004), and reported on the contents of the Communication from the Commission to the European Parliament and the Council (COM (2011)578)) on the implementation of certain provisions of Council Regulation (EC) No 812/2004. She stressed that studies were required for ameliorating pingers, and a better cooperation with the fisheries sector was needed. In the framework of the reform of the CFP, amending 812/2004 was not an option – the focus will be on an integrated approach linked to local conditions. M.Damanaki indicated she would strive towards (1) the introduction of the monitoring of cetaceans and bycatch into the data collection framework, (2) the harmonization of the CFP with the Habitats Directive and the MSFD and (3) the inclusion of bycatch mitigation measures into technical measures. In the reform of the CFP, decisions on concrete measures will be the responsibility of Member States, more than in the past. As they are partly responsible for the current problems in fisheries, M.Damanaki indicated that she intends to cut down subsidies in fisheries, except for 'green investments'. Pingers could be subsidized, under the condition that they properly work. In a reaction, K.Arsenis plead for the introduction of MPA's into the CFP. L.Kramer remarked that there is no problem with the implementation into national legislation of European legislation, but that there is an immense problem with its execution by Member States. For instance, there are very few legal cases against Member States for not executing the provisions in the Habitats Directive. Also according to L.Kramer, the EC has problems in the implementation of OSPAR and CMS Resolutions. A.Gillespie pointed at the danger of vote-buying, as is the case currently in the IWC; it is a plague that might be dangerous if it would pop up in CMS, CITES, CBD and the Climate Change Commission. A.Gillespie hoped that the EC would join Australia in its case against Japan concerning whaling. The conclusion of the meeting was that there would be regular contacts between the participants and organisers about possible further initiatives</p>
DENMARK
<ul style="list-style-type: none"> • The Danish Nature Agency has drafted a new Action plan for stranded cetaceans in Denmark. The plan was in public hearing in the autumn of 2011. The final version is expected to be published in 2012. • The preliminary analysis of the total number of stranded cetaceans in Denmark in 2011: 91 harbour porpoises, 6 white-beaked dolphins, 1 unknown dolphin, 1 sperm whale, 1 minke

whale.
FINLAND
FRANCE
A new legislation on marine mammals was released in July 2011 clarifying the disturbance and the harassment. There is also an article on the necessity to declare any by-catch to help the research. There are also provisions for the protection of the habitat of the species.
GERMANY
LITHUANIA
Management plan and Action plan for harbor porpoise in Lithuanian Sea Zone in the Baltic Sea area were prepared and adopted by the Minister of Environment of the Republic of Lithuania. The implementation of the Action plan should start in the second semester of 2012. The main aim is to improve a state of harbor porpoise in Lithuanian Sea Zone in the Baltic Sea area. There is foreseen to implement information actions: installation of the information boards in the coast area, publishing booklets about the species, creation of video film about harbor porpoise, survey of fishermen about bycatching, arrangement of lectures for fishermen and etc.
NETHERLANDS
<p>The Dutch Ministry of Economics, Agriculture and Innovation (EL&I) commissioned the writing of a “Harbour porpoise species conservation plan: towards a favourable conservation status” (Camphuysen & Siemensma 2011). The aim of this conservation plan is to improve or at least maintain the current conservation status of Harbour Porpoises in North Sea waters under Dutch jurisdiction. Given the mobility of porpoises and the seasonality in their widespread occurrence throughout the Dutch sector of the North Sea, a generic conservation plan rather than an area based approach was considered more appropriate. An important component of this plan was to provide a summary of scientific evidence on existing or expected (negative) population level effects of potential threats. A comprehensive stakeholder consultation has been part of the project. Based on available scientific evidence and experiences in other countries, mitigation measures and suggestions for urgently needed additional scientific research have been formulated. The plan recommends to establish an observer scheme on all passive gear fleets to assess bycatch rates according to internationally accepted protocols, to investigate alternative gear or set-net modification, to use pingers (controlled) when bycatch is identified, to facilitate bycatch landing, to control illegal fisheries, to amend EC 812/2004 and to evaluate the effectiveness of mitigation measures. Regarding the adverse effects of impulsive underwater noise (detonation, seismic, pile driving) a system of standards and protocols to mitigate and investigate the impact should be developed and implemented. A national scientific research group will be established to deal with aspects such as research needs, research quality and evaluation of the quality and conclusions of reports. The conservation plan has been presented to the State Secretary of the Ministry of EL&I in November 2011. Currently an implementation plan is developed by the Ministry.</p> <p>Concerning the Marine Strategy Framework Directive (MSFD), in the Initial Assessment report the currently available information is described on the abundance, distribution and habitat use of harbour porpoises on the Dutch Continental Shelf. In the report on the description of a Good Environmental Status, the present state at species level is described</p>

for e.g. harbour porpoises, leading to a definition for Good Environmental Status for Biodiversity. In the Targets & Indicators report the number of harbour porpoises is proposed as one of the indicators for GES 1 Biodiversity - 1.2 Population size. Also the OSPAR EcoQO on by-catch levels is proposed as one of the indicators for GES 4 Food webs - 4.3.1 Abundance trends of functionally important selected groups/species. In the Dutch Marine Strategy, that is currently under development, a final selection of the proposed targets & indicators will be made.

References

Boon AR, Prins TC, Slijkerman DME, Schipper CA (2011) Environmental targets and associated indicators. Implementation of the Marine Strategy Framework Directive for the Dutch part of the North Sea: background document 3. Deltares rapport, IMARES rapport C128/11.

Camphuysen CJ & ML Siemensma (2011) Conservation plan for the Harbour Porpoise *Phocoena phocoena* in The Netherlands: towards a favourable conservation status. NIOZ Report 2011-07, Royal Netherlands Institute for Sea Research, Texel.

Prins TC, Slijkerman DME, de Mesel I, Schipper CA, van den Heuvel-Greve MJ (2011) Initial Assessment. Implementation of the Marine Strategy Framework Directive for the Dutch part of the North Sea. Background document 1 (of 3). Deltares-IMARES report.

Prins TC, Slijkerman DME, Schipper CA, van den Heuvel-Greve MJ (2011) Determination of Good Environmental Status. Implementation of the Marine Strategy Framework Directive for the Dutch part of the North Sea. Background document 2 (of 3). Deltares-IMARES report.

POLAND

On 7 December 2011 four of fishermen organizations, including the Kołobrzeg Group of Fish Producers, the Darłowo Group of Fish Producers and Fishermen Boats Shipowners, the National Chamber of Fish Producers from Ustka and the Władysławowo Fish Producers Organization, signed the Polish Codex of Responsible Fishing. The marine fishermen Association declared signing of the Codex in the nearest future. Together, all mentioned organizations unite the owners of 274 fishermen vessels.

According to the Codex the fishermen organizations oblige to follow fishery law, respect the resources and their natural environment and co-operate with the other signatories in the area of introducing the optimal methods of fishery management, enrichment of the knowledge of resources, full transparency of their activities and ensuring the best quality of catch delivered to the consumers.

Under the Project "Support for Restoration and Protection of Baltic Mammals" the work on updating of the action plan of porpoise conservation and elaboration of the action plan of grey seal conservation was initiated with the participation of all stakeholders. Both plans shall be completed by the end of 2012.

In September 2011 the European Commission presented the second report on implementation of 812/2004 Regulation by EU Member States. Report says that during 6 years since the regulation is in power the main goal, namely the protection of cetaceans against incidental bycatch, was not reached. In relation to this there is a need to integrate improved prevention measures into the reform of the Common Fisheries Policy. It will allow to define the extent of general and detailed goals and measures connected with the bycatch of cetaceans and therefore to give the Member States the possibility of using specified remedial measures in particular areas, more proper and effective than those envisaged under the Regulation (WE) 812/2004.

The Polish Presidency introduced into the October 27-28 2011 meeting of the Working Party on Internal and External Fisheries Policy a new agenda item concerning the discussion on the mentioned above EC report. Member States supported the report and expressed the

need for more detailed information and review of data on the areas where cetaceans are abundant. Member States appealed also for avoiding unnecessary administrative burden.

At the HELCOM HABITAT 24–27 May 2011 meeting in Copenhagen Poland proposed to change (update) the HELCOM 17/2 Recommendation on porpoise. The same proposal was presented by the Polish representative at the HELCOM SEAL 20-21 September meeting in Tallinn and it was accepted by experts participating in this group. The new Recommendation proposal will be presented for final endorsement at the next HELCOM HABITAT 14/2012 meeting in May 2012.

SWEDEN

During 2010 SEPA started developing national guidelines for underwater noise and marine mammals. This responsibility for the guidelines has now shifted to the SwAM. A background report that SEPA commissioned by AquaBiota Water Research which has been received by the SwAM. The guidelines do not cover noise from vessels, but will be useful during constructions of windparks, pipelines, blastings, etc.

During 2011 article 10, Council regulation (EC) No 1098/2007 of 18 September 2007) was implemented in the national regulation (FIFS 2004:25). This restricts fishing with bottom nets (mesh size ≥ 110 mm) from small vessel (max 8 m) in the Baltic Sea, so that one need apply for exemption. The consequence of this is that the turbot fisheries who usually use bottom nets with mesh size around 220 mm off the coast of the island Gotland will be of lower intensity which may cause lesser bycatch of harbour porpoise.

In 2011, four marine protected areas (MPA) were declared as Special Area of Conservation (SAC), of which three are in the Kattegat and one in the Skagerrak. In these areas are fisheries restricted. One of these, Fladen, is a large area (10 380 hectares) where there are varying fisheries regulations in different zones. In certain zones there is total closure of all fisheries all year round. In this area, harbour porpoises are common. Other areas with restrictions of the fisheries are also established further north off the Swedish west coast. (See point 3 above.)

In 2009 Sweden's first marine national park was established in the Koster archipelago in the Skagerrak. Certain regulations will apply in the use of leisure boats as well as fisheries.

UNITED KINGDOM

The Scallop Fishing (Wales) (No.2) Order 2010 provides protection to seabed habitats from scallop dredging activity for most of the sea area covered by these sites (this is also included in Section 3).

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

As part of the Marine Licensing process for offshore construction, the MMO require and monitor the implementation of Marine Mammal Mitigation Protocols (MMMPs) to mitigate against harm and disturbance to cetaceans, including for piling work on wind farms.

E. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

BELGIUM
<p>Exhibition on whales and dolphins</p> <p>The exhibition on Whales and dolphins in Belgium at the Bird Rehabilitation Centre at Ostend ended in September 2011. It will move to Liège in 2012.</p> <p>Web based initiatives</p> <p>Two initiatives towards the public to record, report and distribute marine mammal sightings continue: www.waarnemingen.be is an initiative of <i>Natuurpunt Studie</i> vzw and <i>Stichting Natuurinformatie</i> that collects from volunteers records of observations of species of different taxonomic groups, including cetaceans. For 2011, 126 observations of in total 1191 harbour porpoises were reported to this website, of which 36 observations (848 animals) during March. Observations included daily totals of harbour porpoises observed during bird surveys (by the INBO), with a maximum of 342 animals on a single day. One observation was reported of a bottlenose dolphin, and four observations of in total 19 white-beaked dolphins. www.zeezoogdieren.org is an ongoing initiative by Frank Wagemans (Natuurpunt vzw) and Jaap Van der Hiele (EHBZ Zuidwest) that gives ad hoc information of noteworthy facts on marine mammals from Dutch and Belgian waters. Besides that, MUMM manages an online database on strandings and selected sighting records: www.mumm.ac.be.</p> <p>Other noteworthy matters</p> <p>During 2011 several observation daytrips (on a ship with a capacity of 30-40 people), called 'North Sea Pelagics' were organised, an initiative to present cetaceans in their natural environment to the wider public. More information on www.northseapelagics.be. Observations made during the trips were reported to MUMM. In 2011 a petition was organized in Belgium against the fate of dolphins in Japan (Taiji), an initiative that found wide media coverage. Next to this, the public was made aware of the keeping in captivity of dolphins in appalling conditions in Egypt.</p>
DENMARK
<p>Fjord&Bælt in Kerteminde, Denmark, houses four harbour porpoise (3 live-caught and 1 born in the facility) for research and public display. The center is visited by more than 50,000 guests every year, including more than 5,000 school children. A long range of Danish and international media teams (TV, radio, newspapers, home pages) visit the center every year and usually focus their outreach on harbour porpoise research and conservation. Fjord&Bælt is hosting the yearly meeting about harbour porpoise conservation by the Danish Nature Agency. The meeting includes government representatives, scientists, legislators, and NGOs and creates local media interest. There is special focus on research and conservation efforts of harbour porpoises during a number of arrangements in Kerteminde, such as the Day of the Baltic Porpoise, two yearly science festivals, and 'special events', scheduled by Fjord&Bælt with regular intervals. In 2011 Fjord&Bælt developed a theatre performance for young children about harbour porpoise conservation in particular and marine protection in general. The performance was a large success and has been shown both in Denmark and Greenland. In 2012 there are until now performances planned in Kerteminde, Svendborg and Middelfart</p>
FINLAND
<p>Finland has continued the harbour porpoise sighting campaign and received information of seven possible sightings of 11-17 animals in year 2011. The Ministry of the Environment and</p>

the Ministry of Agriculture and Forestry have established a common practice of recommending fishermen to avoid fishing with nets in coastal areas where harbour porpoises have been sighted.

FRANCE

Agreement to the general public and to fishermen.

Public conferences (Oceanopolis-Brest and *PELAGIS/ULR*) National stranding network: training for volunteers and national meeting (*PELAGIS/ULR*) Observer training in the frame of fishing observation scheme, council regulation 812/04 (*PELAGIS/ULR*) Annual Symposium of French stranding network, annual stranding report, research with biological samples from stranding, stranding scheme animation. Regional stranding network: training for volunteers and annual meeting (LEMM/Océanopolis) Educational workshops on cetaceans implemented for schools by the Education Department/ Oceanopolis) Movie on cetaceans and ferries survey produced by Brittany Ferries and Oceanopolis broadcasted onboard the ferries+ conference on board New exhibition on cetaceans: National Museum Paris, partnership Oceanopolis. An itinerant version circulates in Europe.

GERMANY

A request (“Kleine Anfrage”) from the German Parliament (Bundestag) for information about the implementation of ASCOBANS and the protection of Small Cetaceans in Germany was answered by the Federal Government. The answers to the 40 questions posed by the MoP Undine Kurth et al. were published 17.2.2011 in “Bundestagsdrucksache 17 / 4733 - . [Schall, BMU]

The annual German Voluntary Contribution to ASCOBANS of 25.600,-€ was mostly dedicated to public awareness issues. [Schall, BMU]

Within the framework of a research project aiming at a better implementation of the Integrated Coastal Zone Management ICZM (supported by the Federal Agency for Environment and the Federal Ministry for Environment, Nature Conservation and Nuclear Safety) the competition “Lust op dat Meer” with several pilot projects was realized. The pilot project “Harbour Porpoise Friendly Eckernförde Bay” is meant to stabilize the population of harbour porpoises in Eckernförde Bay by avoiding bycatch in gillnet fishing. 7 out of 12 fishing companies took part on a voluntary basis. A list of procedures was developed and implemented with those companies (e.g. pick-up service for bycatch at sea, providing pingers for gillnets, testing of alternative fishing methods). Participating companies are allowed to use the official logo designed for this project as a mean of advertising (“harbour porpoise friendly fishery”). The project was accompanied by an exhibition on harbour porpoises including a static hydrophone with live broadcast of sounds from the Eckernförde Bay, and sound level as well as frequency analysis. It contributes effectively to the protection of the cetaceans and improves the image of the participating fisheries as well as the region itself. There is a noticeable interest among experts as well as the general public. The project also proves that the ICZM as a means of voluntary communication and management practices is well suited to point at possible solutions for existing conflicts incorporating all relevant stakeholders. [Köchling, BMU; Müller, OIC]

In 2011, the German Oceanographic Museum became responsible for the project “Sailors on the lookout for harbour porpoises in the Baltic Sea at large – Kattegat, Belt Sea, Sound, Western Baltic and Baltic Proper” which was previous a project by the Society for the Conservation of Marine Mammals (GSM). This project is well-respected and already known to a wide public especially along the coast of the Baltic Sea region. It includes registration of sightings of harbour porpoises and the findings of dead porpoises. Through the webpage of the museum and on their flyers on projects the museum provides information on porpoise sightings (<http://www.meeresmuseum.de/wissenschaft/sichtungen.html>) and dead animals

(<http://www.meeresmuseum.de/wissenschaft/totfunde.html>). The flyers explain what people should do if they encounter a porpoise or find one dead. It is possible to contact the museum by post, email or telephone. The sightings data are posted on-line, and BfN is regularly publishing the map with the annual data, see <http://www.bfn.de/habitatmare/en/downloads-schweinswalsichtungen-gsm.php>. The sightings map is interactive (all information can be accessed by a simple click). [Gallus, DMM; Deimer, GSM]

Several press releases on Baltic Sea harbour porpoises were published in the course of the year and interviews were given to media upon request. [Deimer, GSM]

The “active region Ostseeküste” held a workshop on alternative fishing methods which have the potential to reduce by-catch of harbour porpoises and seabirds and possibilities for eco-labelling of small scale fisheries. Fishermen, gear technologists, fishing and conservation authorities as well as environmental NGOs were participating. [Sturm, Active Region “Ostseeküste”]

LITHUANIA

International Harbor Porpoise Day was celebrated for the 9th time at the Lithuanian Sea Museum. Every year the specialists of Lithuanian Sea Museum look for a way to improve a public awareness about harbor porpoise species. The artworks exhibition was organized at this time. Exposed artworks – paintings and volume objects were made by students from Klaipėda Art school. Students expressed their views about harbor porpoise life, reducing of problems caused by man and affecting this species and etc. Exhibition was open from May 13 - June 7, 2011.

NETHERLANDS

Vereniging Kust & Zee, the Dutch section of the Coastal & Marine Union (EUCC) annually publishes the printed “Kust en Zeegids”. Furthermore the EUCC regularly distributes digital newsletters with relevant information on their projects. It also communicates news through its website www.kustenzee.nl and www.eucc.nl. The EUCC has an exhibition centre on the Pier of Scheveningen, The Hague (Kust&Zee x-Pierience) which officially opened in March 2011.

IVN Consulentschap Zeeland, the National Park Oosterschelde in collaboration with Rugvin Foundation and Marine Science & Communication initiated a project on the Harbour Porpoise in the Oosterschelde Estuary. The project “Welcome Porpoise” will continue in 2012 and aims to make visitors of the National Park aware of porpoises in the Oosterschelde (<http://www.np-oosterschelde.nl/>).

POLAND

On March 23 2011 Krzysztof E. Skóra was awarded by European Cetacean Society Conservation Award for consequent promotion of knowledge, research and action for the Baltic mammals protection.

On May 15 2011 at the ASCOBANS International Day of the Baltic Porpoise, the Hel Marine Station and the Foundation of Development of the University of Gdańsk together with the LOTOS S.A. Group organized an information stand by the porpoise monument in Gdynia as well as educational event for children [http://www.hel.ug.edu.pl/aktu/2011/mdbm_2011.html]

On May 29 2011 in Gdynia, in the frame of the IX Baltic Festival of Science, a scientific picnic was organized. The stand of the Hel Marine Station was dedicated to dissemination of knowledge on the new research techniques use in porpoise protection.

[http://www.hel.ug.edu.pl/aktu/2011/BFN_2011.html]

Between May 31 and June 2 2011 in Gdańsk a subsequent edition of International Fair of Fish Processing and Fish Products POLFISH 2011 was held. The educational stand of the

Hel Marine Station was dedicated to the protection of marine mammals in fishery.

[http://www.hel.ug.edu.pl/aktu/2011/Polfish_2011.html]

In the documental film „Baltic Coast II” produced by the ARTE Television and emitted on June 13 2011, the reportage on porpoise protection actions in the Puck Bay was included.

[<http://www.youtube.com/watch?v=oY7Y4B-4bq4>]

On June 11-20 2011, in the frame of educational project “The Blue School”, the Hel Marine Station, on the commission of the NIVEA concern organized the educational cruise of the sailing ship “Zawisza Czarny” on the route: Szczecin (Poland) – Stralsund (Germany) – Kerteminde (Denmark) – Hel (Poland). The aim of the cruise was to make young sailors familiar with the biology, ecology and threats to the Baltic porpoise population and conservation of this species in the Baltic according to the obligations connected with the ASCOBANS agreement. During the cruise young sailors were taught how to watch porpoises in the sea and they have also visited the porpoise research centre Fjord&Belt Centre in Kerteminde (Denmark).

[http://fokarium.pl/aktu/2011/BSz_na_falach_Baltyku.html]

On December 12 2011 the conference summarized a pilot project “Ghost nets retrieval from the Baltic Sea” was carried out. The conference was attended by scientists, local and central administration and fishermen representatives. By this occasion a brochure with description of the project was published in Polish and English version.

The Hel Marine Station keep running a website dedicated to porpoise: www.morswin.pl

On March 2011 the Ministry of Environment supported the Hel Marine Station application for creating of “The Porpoise House” – a center for dissemination of knowledge on porpoise biology and ecology. The project will be financed by the funds provided by the National Fund for Environmental Protection and Water Management. The construction of the center will start in 2012.

SWEDEN

The International Day of the Baltic Harbour Porpoise was celebrated 2011 through exhibitions and presentations at Havets Hus, the public saltwater aquarium in Lysekil.

SAMBAH has created an exhibition on the Baltic harbour porpoise and the SAMBAH project that has been on display at Aquaria Water Museum in Stockholm, since fall 2011.

Kolmården Wildlife Park, with their dolphinarium, has repeatedly carried out a one-day visit program “Närkontakt Delfin” (Close Encounters With Dolphins) to the public the Baltic harbour porpoise. During public shows at the dolphinarium it has been shown an introductory movie about the Baltic harbour porpoise and the SAMBAH project. In addition they have given numbers lectures about SAMBAH for special tour groups at the dolphinarium and during conferences.

There are two different websites and database systems for reporting of harbour porpoises and cetacean in general. The SMNH has a web site accessible for the public to report live harbour porpoises. The report form is relatively simple which make it relatively easy for almost anyone to complete a report (www.nrm.se/tumlare). During 2011 at least 177 reports were submitted. Most of the reports came from the Swedish west coast. All reports are quality controlled before being published on the web. The web page also includes photos, and a couple of very interesting films of porpoises playing around a small boat. Data from the SMNH's database has been submitted to the HELCOM/ASCOBANS Harbour porpoise database and map service.

Species Gateway (Artportalen) is an independent site by the Swedish Species Information Centre at the SLU for collecting sightings of species (www.artportalen.se/default.asp). The

site is open to anyone who wishes to contribute their data and is more detailed in data, relative to that one of the SMNH. It also demands relatively more of the observer to be complete the report, than in the SMNH's database. Beside the option to report cetaceans in the reporting system for Mammals, Amphibians and Reptiles, there are reporting systems for all organism groups. The data can be used by anyone – the general public, scientists, organisations and authorities. All observations are published first and are verified later by authorized persons within the organisations.

Data of the two databases are not directly exchangeable but information to some extent has been transferred to the SMNH. Both reporting databases has been developed by support from SEPA. However, the authorities should consider which of the organizations that will have national responsibility for receiving reports.

The website valar.se is a web-based network between museums, researchers, authorities, field observers, etc., to register news about sightings of observations of living as well of dead cetacean. Most news origin from the Swedish west coast but also comes from the Baltic Sea. The network collaborates with corresponding Danish network, Sæler og hvaler i Danmark (www.hvaler.dk). It also functions as a filter for quality control of observations that will be registered in the SMNH's register as well as in the Species Gateway.

SAMBAH's web site (www.sambah.org) gives general information about the project's objectives, activities, methodologies etc.

UNITED KINGDOM

A leaflet campaign was launched at the end of 2011, encouraging members of the public to report animals found stranded around the UK coast to the CSIP (http://ukstrandings.org/CSIP_leaflet.pdf).

The tenth National Whale & Dolphin Watch Event was held between 5th and 7th August 2011. This involved >1,000 observers, and received both regional and national media attention (Gibas, 2011; Nekar & Albray, 2011). A Dolphin Adoption scheme has targeted children in schools and coastal communities. A wide range of educational materials has been produced, and two environmental video films were made by three primary and one secondary school in Pembrokeshire, SW Wales. These were awarded first & second prize respectively in a national media festival. Links have been established with Eco schools England - who held a marine mammal month - and with Eco Schools Scotland , with curriculum specific materials now available to teachers on both organisation's web sites. SWF continues to work with the Pembrokeshire County Council "Buzz Biz" project to involve local school children in marine conservation issues. Ongoing work with children's magazines is helping raise awareness of the UK's cetacean populations, and in particular of conservation issues facing the harbour porpoise and bottlenose dolphin.

References:

Gibas, D. (2011) 10th National Whale & Dolphin Watch Event, 5th-7th August 2011. Sea Watch Foundation, New Quay, Ceredigion. 17pp.

Nekar, W. and Albray, J. (2011) Sea Watch Media Relations Activity Report, 2011. Sea Watch Foundation, Leamington Spa. 27pp.

Jersey

A code of conduct is available for fishermen and general public. Code reviewed and updated as necessary. WiSe courses run as required for commercial operators and other interested individuals.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

BELGIUM
None
DENMARK
FINLAND
FRANCE
GERMANY
LITHUANIA
NETHERLANDS
POLAND
None
SWEDEN
UNITED KINGDOM