

Agenda Item 5.3

Review of Implementation of the ASCOBANS
Triennial Work Plan (2010-2012)

Annual National Reports of ASCOBANS
Parties

Document 5-03

**Compilation of Annual National
Reports for 2009, 2010 and 2011**

Action Requested

- Take note

Submitted by

Secretariat



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

Compilation of Annual National Reports for 2009, 2010 and 2011

1. The Annual National Report Compilations contained in Annex 1, 2 and 3 of this document have been prepared by the Secretariat in response to the instructions in Article 4.2 of the Agreement text to present to Parties a summary of the Party reports.
2. The Agreement text foresees that these compilations be available each year no later than 30 June. However, this is contingent on Parties submitting their national reports in accordance with Article 2.5, which specifies that these should be submitted to the Secretariat not later than 31 March each year. Delays in producing the compilations have been caused by late submissions of individual reports.
3. All National Report Compilations can be accessed under "[Publications](#)" on the Agreement's website. The compilations group all Parties' answers to each question in the national reporting form. This enables the reader to gain an easy overview of the activities and developments relating to each topic queried in the reporting form.
4. To date, no systematic and regular analysis of progress based on the annual national reports is being undertaken. MOP7/Doc.7-05 *inter alia* contains a proposal to move to an online reporting system, which in future might be expanded to contain an analytical tool that could help in assessing progress made.

Fourteenth Compilation of Annual National Reports to ASCOBANS 2009



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

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Compilation of Annual National Reports to ASCOBANS 2009

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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

A project 'WAKO II' started in 2009 and will continue in 2010. The project aims at an integrated assessment of direct ecosystem effects of trammel net and beam trawl fisheries for the Belgian part of the North Sea (BPNS). A total of 4 workpackages are therefore drawn up, namely (1) quantification of the major direct, short-term effects of trammel net and beam trawl fisheries at the BPNS, (2) the development and application of a methodology for a sensitivity assessment of key species of each of the ecosystem components (endo-, epifauna, fish, sea birds and marine mammals), (3) the production of spatio-temporal distribution maps of these key species and (4) the integration of sensitivity maps of the key species and fishing effort.

The study includes the participation of independent observers on board static gear fishing vessels, and a voluntary logbook-keeping by static gear fishermen. The project is funded by the Belgian Science Policy (<http://www.belspo.be/ssd>).

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DENMARK

Research project for developing alerting pingers (Lotte K Larsen and M Wahlberg, DTUAQUA and Fjord& Bælt, funded by the Danish Ministry of Food and Agriculture and the EU Strategic Fishery Foundation, EFF), final project report ready in October, 2010.

Studies on porpoise behaviour around fishing gear (M Wahlberg, Fjord& Bælt), funded by the Danish Ministry of Food and Agriculture and the EU Strategic Fishery Foundation, EFF), final project report ready in October, 2010.

Research project on video monitoring of by-catch from smaller fishing vessels (Lotte K Larsen, DTU-AQUA): Kindt-Larsen, L & Dalskov, J., 2010. Pilot study of marine mammal by-catch by use of an Electronic Monitoring System. EFF-report, Ministry of Food, Agriculture and Fisheries.

Dalskov, J. & Kindt-Larsen, L., 2009. Final Report of Fully Documented Fishery. DTU Aqua report no. 204-2009. Charlottenlund. National Institute of Aquatic Resources, Technical University of Denmark

FINLAND

In the absence of reported bycatches, no studies are carried out.

FRANCE

Pilot study in Iroise sea (EC 812/2004): species and level of by-catch + implementation of 3

acoustic deterrents (Aquamark, VO2, DDD); Iroise Marine Protected Area / Ifremer / Oceanopolis / Local fisherman representative are the participants involved in this study. The final report is available through internet; the biological results are poorly significant due to the low bycatch in that part of area VII. The real costs of equipments have been evaluated after one year of experiments.

The fishing Industry worked to prepare an observer programs (Filmancet) dedicated to set nets in the Channel, the aim is to determine the level of by-catch in this area and to test acoustic deterrents (decision of the National Committee of the Fisheries (CNPMM: French industry) and the National Head of the Fisheries (French administration)). The Ministry of fisheries will also dedicate some additional observations on vessels in 2009 included in the project Obsmer. All those observation programs planned by the Fishing Industry, the ministry of Fisheries and Ifremer have started in 2009 in the area VII in order to determine seasons, fishing grounds and fisheries having the highest bycatch rate. A standardization of a protocol for all the observation programs has been done by the IFREMER and the CRMM/ULR in 2009 the tasks will be similar in all the observations at sea (whatever is the regulation asking for observers). This means that cetacean bycatch is recorded now for all gears and fisheries when observers are on board. An intermediate report is available, it shows a low bycatch rate at least in the western channel.

Following the EU NECESSITY project to reduce cetacean by-catch in pelagic trawl fisheries, experiments of the acoustic deterrent CETASAVER on commercial vessels were carried on in 2007, 2008 and 2009 by Ifremer and the fishing industry. The methodology consists in having combined tows to compare control tows and test tows in several trips in the sea bass fisheries. A report has been published on internet by Morizur et al. (2008)

GERMANY

None

LITHUANIA

No investigations on methods to reduce by-catches of harbor porpoises have been conducted so far.

NETHERLANDS

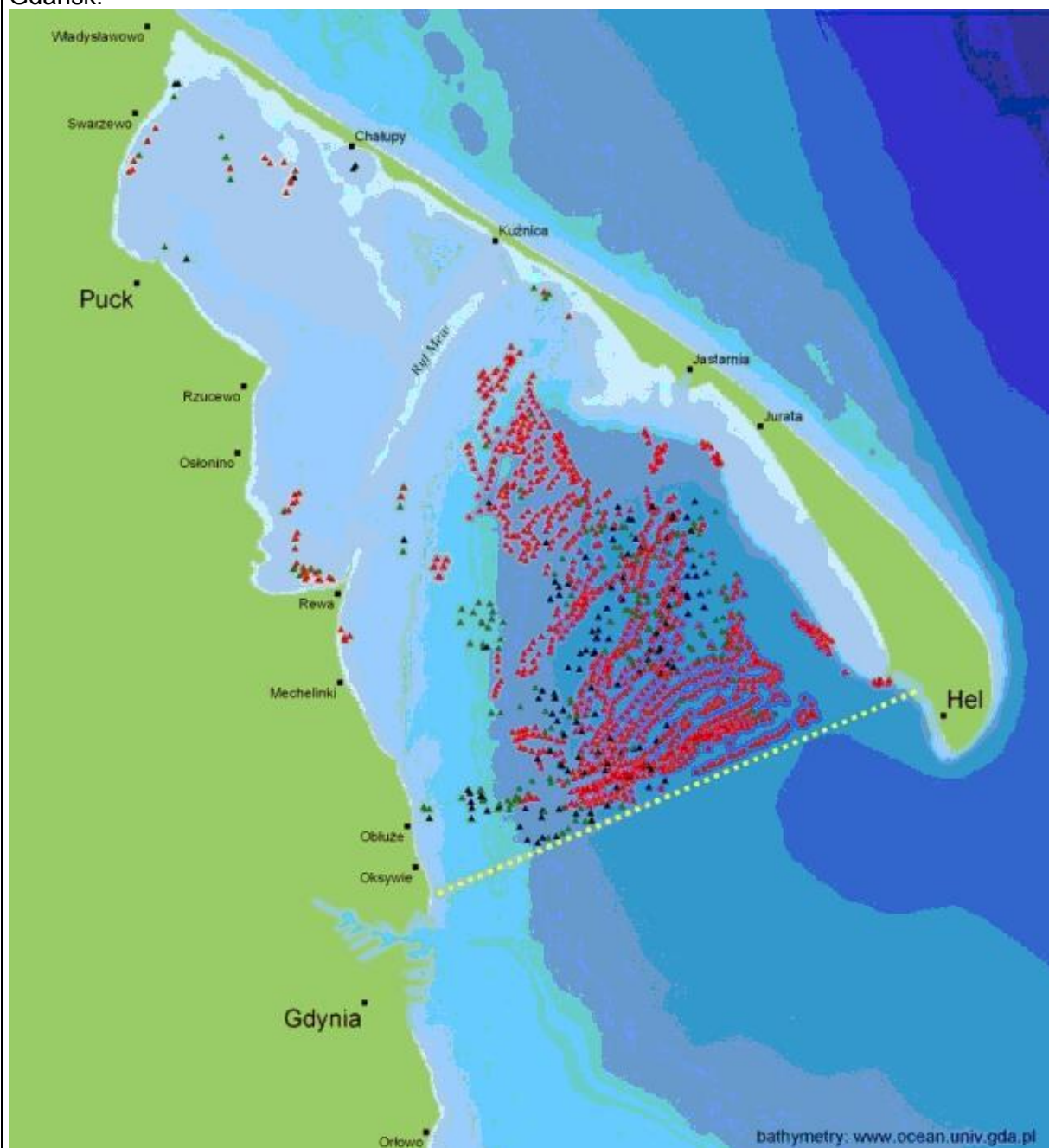
Coastal & Marine Union (EUCC) started in 2009 a pilot study to investigate the workability and efficiency of a new pinger, the Dolphin Saver, aiming to mitigate bycatch of Harbour Porpoises (*Phocoena phocoena*) in the winter set net fishery on mainly cod, turbot and brill. The study is a close collaboration between the Dutch Fisheries Organisation (Visserbond); Expert group on set net fishery (Kenniskring Staand want), 10 Dutch winter season set net fishermen and the Coastal & Marine Union. The study is supported by the Dutch Ministry of Agriculture, Nature and Food Quality and aims to be continued in 2010 and 2011. Project coordinator for EUCC is Marine Science & Communication.

For 2010 a trial is planned with Closed Circuit television on board of one or two set gillnet vessels. This system is primarily used for the collection of effort and catch data, but is probably very suitable for the bycatch observation as well. First results are expected to be available for presentation at the ASCOBANS meeting in 2011.

POLAND

Among the research on methods of reducing bycatch in Poland last year was the project "Active Protection of Harbour Porpoises against Bycatch". 2009 was another year in the preparatory period before the introduction of a linear barrier of acoustic scares at the entrance to the Puck Bay to stop the porpoises from entering an area where there is a high density of bottom gillnets and anchored surface gillnet (GNS). The project is carried out by

the Hel Marine Station of the IOUG, financed by the National Fund for Environmental Protection and Water Management and the University of Gdańsk.



Explanation: Red points – surface gears, black points – bottom-set gears, green points – unrecognized gears. Side - method of anchoring the pingers on the seafloor.

SWEDEN

Cod pots

A potential alternative fishing gear to the cod gillnet fisheries in the Baltic is the two-chambered pot. The Swedish Board of Fisheries has investigated the catch of the Norwegian cod pots when used in a commercial fishery. The cod pots catch efficiency over the fishing season 2009 has been investigated and compared to the gillnet fisheries in the same area.

However, there are many aspects regarding the use of pots which needs to be taken under consideration. The pot needs to be selective both with regard to non commercial fish species, small fish and marine mammals and birds. There is also a need to improve catch efficiency of the pots. This can be done by modifying the pots entrance, adding a visual stimuli or just using more long lasting bait. Studies have been carried out to investigate if visual stimuli can increase the catch. The Swedish Board of Fisheries have also studied the effect of escape windows for the undersized cod.

UNITED KINGDOM

The two main species affected by fishing in UK waters are the harbour porpoise and the short-beaked common dolphin.

Since Regulation 812/2004 came into force, for four years running (2005-2008 inclusive) there have been no observations of cetacean bycatch in any of the fleet segments listed for compulsory monitoring. Additional monitoring of pelagic trawl and static net fisheries was also undertaken for the purposes of Article 12 under the Habitats Directive and 'Scientific Studies' under Regulation 812/2004.

For 2008, the bycatch estimates of harbour porpoise in gillnet and tanglenet fisheries in the Irish and Celtic Sea areas was 498-1409 and for common dolphins 279-1019 (SMRU, 2009). The bycatch levels recorded are below 1.7% of the best population estimate and unlikely to represent a major conservation threat to either species. However, there are bycatches in many other European fisheries affecting the same biological populations. It is not yet possible to determine the cumulative significance of the various bycatch estimates.

The UK is committed to enforcing all aspects of Council Regulation 812/2004 and the provisions of the Incidental Catches of Cetaceans in Fisheries (England) Order 2005 in order to minimise cetacean by-catch. All Reports to 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. All Reports can be found at: <http://www.defra.gov.uk/foodfarm/fisheries/protect/cetaceans.htm>.

1.2 Implementation of methods to reduce bycatch

BELGIUM

None

DENMARK

None

FINLAND

None

FRANCE

Modification of practices in pelagic trawling (headline at 5 m depth)

GERMANY

Together, three NGOs (GSM, GRD and NABU) prepared a paper on "by-catch of harbour porpoises (*Phocoena phocoena*) in the Baltic coastal waters of Angeln and Schwansen (Schleswig-Holstein, Germany)" (Koschinski & Pfander 2009, AC16/Doc.60) as well as a literature study on "strategies to prevent by-catch of harbour porpoises and seabirds in the German Baltic Sea", mainly focusing on alternative fishing methods (funded by 'BINGO!

Lotto'). [Koschinski]

In addition to the GSM's public awareness project "Sailors on the Look-out for Harbour Porpoises", members of the public are increasingly reporting strandings (inc. bycatch). The data are automatically forwarded to the authorities and to the stranding network. If possible, the location of a stranding is – with some delay due to logistics – also registered and published in the sightings map of BfN/GSM. [Deimer]

LITHUANIA

Yes, on the basis of the Council Regulation (EC) No. 812/2004.

NETHERLANDS

None

POLAND

Article 2 and Annex I to the Regulation 812/2004 obliges Poland to use in the ICES 24 area acoustic deterrent devices (pingers) on fishing vessels of the length 12 m or more. Poland undertook efforts to purchase pingers so as to distribute them among fishermen. It was assessed that order to fulfil Poland's commitments concerning the above Regulation 500 pingers should be purchased. Therefore, an open tender was announced, and 500 pingers AQUATEC AQUAmark 100 (produced by a British company – AQUATEC) were purchased. In January 2009 all pingers were distributed among fishermen by the Marine Fisheries Inspectorates in Gdynia, Słupsk and Szczecin. Over half of the pingers are possessed by ship owners of ships in the region where the use of deterrent devices is obligatory (Świnoujście - 6%, Dziwnów - 30%, Mrzeżyno - 15%, Kołobrzeg – ca. 4%). The reminder are held by ship owners who fish in the same area but whose home ports are located on the central and east coast. These are Darłowo (4%), Ustka (ok. 28%) i Władysławowo (ok10%).

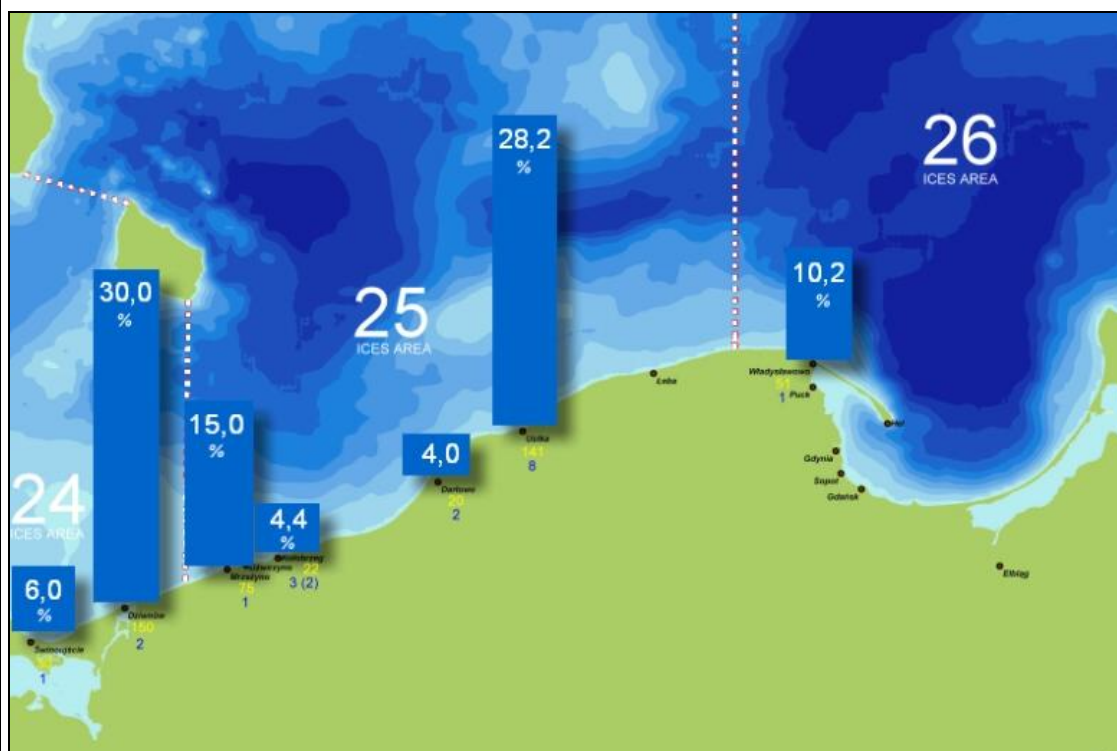


Fig.2. The location and percentage of pingers held by Polish ship-owners who fish using set gear (as of 2009).

Other activities which may assist the reduction of porpoise bycatch have not been carried out.

SWEDEN

Push-up traps

The pike perch fisheries in the Baltic sea have suffered from seal damages for a long time. In 2008 pike perch/white fish traps were being introduced as an alternative to gill nets with the purpose of reducing seal damage. A certain percent of the cost of the trap will be funded by the government when fishermen are investing in the fishing gear. The traps used are so called push-up traps. They have been a success in Sweden in the salmon and white fish fisheries. In the salmon fisheries the traps mostly replace older traps but in the white fish and pike perch fisheries the traps replace nets and therefore reduce net effort.

Pingers

Implementation of pingers: Currently at least 9 fishermen have purchased pingers, using them in the waters covered by the regulation 812. The fishermen on the west coast of Sweden believe the pingers are effective in reducing by-catch of harbour porpoises. However, there will be an increase in numbers of by-caught harbour seals.

UNITED KINGDOM

The Marine Management Organisation (MMO) is England's enforcement body for fisheries matters. The MMO has continued to conduct training courses for the Fisheries Protection Squadron who undertake boarding at sea. This has raised awareness of cetacean and bird by-catch issues. The UK's Monitoring, Control and Surveillance System (MCSS) is now in place for boarding officers to record the number of cetaceans that have been captured as part of a fishing operation (as witnessed during a boarding) or any information given by the Master of the vessel regarding bycatch of cetacean and wild birds.

The use of acoustic deterrent devices as specified under Council Regulation 812/2004 has been problematic for the UK but we are committed to resolving these problems. UK fishing vessels have identified pinger deployment and safety issues during fishing operations and therefore the UK Government is striving to identify pingers that are safe for fisher to use and effective at deterring cetaceans through focused research on the issue.

The UK's research into acoustic deterrent devices is being carried out on behalf of Defra by the Sea Mammal Research Unit (SMRU). SMRU, in collaboration with SeaFish and the Fishing Industry are currently testing two versions of a more powerful, durable acoustic deterrent known as a Dolphin Dissuasive Device (DDD), looking at the effects these devices may have on the population distribution of harbour porpoises (as one of the key species of bycatch concern). Initial results on the efficacy of these pingers are promising, with a significant reduction in porpoise bycatch associated with use of DDDs on gillnets and also very low bycatch rates of dolphins in trawls when DDDs have been used.

Defra is providing SMRU with additional funding for these trials to expand the scope of this work. We hope that this expansion will provide the project with the necessary data to be confident about the efficacy and practicality of use of the pingers.

We hope that in the next year we will be able to make an informed decision on the safety and effectiveness of these new devices, and so make a final decision on whether to implement and enforce the use of these DDD pingers across the whole of the UK fleet segment that is mandated to use them under Regulation 812.

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

BELGIUM

In the framework of the WAKO II project (see above), a small number of bycatch cases of porpoises was reported by fishermen.

DENMARK

none

FINLAND

Permanent contacts between Ministries and stakeholders, especially fisheries organizations, to facilitate among others thing, awareness of harbour porpoise

FRANCE

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

Observers for the EC regulation (n° 812/2004) are deployed for vessels greater than 15 meters and through pilot studies for vessels less than 15 m. As it is not possible to put observers on boats less than 8m for security reason, a correction has been used by using a relationship between vessel size and length of nets.

The table below brings the 2008 bycatch estimates available for pelagic trawl fisheries and set nets observed under the Reg 812/2004 (national report delivered in 2008;

Species	Estimated number of by-caught animals	Area (ICES area or more detailed)	Notes (type of fishery, effort, seasonal variations, etc.)
Phocoena phocoena	350	VIIIa,b	Set net (all size vessels) (all the year)
Stenella coeruleolba	50	VIIIa,b	Set net (all size vessels) (all the year)
Stenella coeruleoalba	0	VII&VIII	pelagic trawling (summer)
Delphinus delphis	100	VIIIa,b	Set net (all size vessels) (all the year)
Delphinus delphis	300	VII&VIII	pelagic trawling (winter mainly)
Tursiops truncatus	0	VII&VIII	pelagic trawling (summer)
Globicephala melas	(90)	VII&VIII	pelagic trawling (summer)

() indicates an estimate raised from only one incident with a high extrapolation factor.

An increase of common dolphin bycatch has been observed in august 2009 in some sampled trips of the tuna pelagic trawling. Difficulties to find tuna may have increase some risk of bycatch.

GERMANY

None

LITHUANIA
None
NETHERLANDS
<p>Report EU regulation 812/2004:</p> <p>Couperus, A.S. 2009. Annual Report of the Netherlands to the European Commission on the implementation of Council Regulation 812/2004 on cetacean bycatch. <i>IJmuiden: IMARES, (CVO report 09.006)</i></p>
POLAND
<p>The Hel Marine Station of the University of Gdańsk carries up-to –date information on cases of bycatch and the discovery of dead porpoises on the coast of the Polish EEZ on its website: www.morswin.pl</p> <p>In the framework of “Long-term Programme for Collecting Fisheries Data” conducted by the Sea Fisheries Institute in Gdynia, neither incidental bycatch was recorded nor harbour porpoises were observed in 2009 (similarly to previous years). The programme does not include methodologically standardized observations by tourists, sailors or anglers.</p> <p>Sea Fisheries Institute (MIR) in Gdynia is conducting the “Monitoring Incidental Catch of Cetaceans” Scheme at the commission of the Ministry of Agriculture and Rural Development. It does not publish reports of its activities online. They are, however, transmitted to the Ministry and to the ICES Study Group for Bycatch of Protection Species</p> <p>The last material published by a sitting of this specialist forum was the report on 2008.</p> <p>On 9 March 2009, in order to fulfill the commitments of EC regulation 812/2004 the Ministry of Agriculture and Rural Development announced an open tender for preparing and conducting the Monitoring of Incidental Catch of Cetaceans Scheme as well as for preparing a report on achievements of this programme for 2009. The Sea Fisheries Institute was once again chosen to fulfil the above tasks.</p> <p>The report’s conclusion indicate that using the described In EC Regulation 812/2004 methodology it is difficult to obtain representative data. The report states that the data is no more representative using information from the National Programme of Fisheries Data Collection, since only about 100 days of fishing annually meet the appropriate criteria, and these are mostly data from cutters using pelagic trawls. The report emphasises that since the beginning of the Monitoring Incidental Catch of Cetaceans Scheme (in 2006), regardless of the time, location, and type of fishing equipment used, no incidental catch of any porpoise has been confirmed, and drawing conclusions from information coming from a variety of assemblies and discussion fora (European Commission, ICES, HELCOM), in the Sea Fisheries Institute believes that continuing the Monitoring Incidental Catch of Cetaceans Scheme makes sense chiefly with respect to cutters fishing with set gear, as it is they who are considered to be causing the greatest morality among mammals and birds in the Baltic Sea.</p> <p>Furthermore, referring to results of the 150 days of monitoring performer on fishing using set gear within the Scheme from 2008 and 2009, it states that at depths over 20 m there have been no records of bycatch of any mammals or birds. Report from Monitoring Incidental Catch of Cetaceans Scheme in 2009 I available on Minstry’s of Agriculture and Rural Development website:</p> <p>Due to lack of full information on quantity of incidental catch of harbour porpoises before launching the Monitoring Incidental Catch of Cetaceans Scheme, that programme was realized in the years 2006-2008 as a pilot programme.</p>

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SWEDEN

None

UNITED KINGDOM

None

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

BELGIUM

None

DENMARK

http://www.aqua.dtu.dk/English/Publications/publication_database

FINLAND
None
FRANCE
http://www.ifremer.fr/docelec/notice/2008/notice4506.htm
GERMANY
None
LITHUANIA
None
NETHERLANDS
None
POLAND
http://www.minrol.gov.pl/index.php?/eng/content/view/full/1469
http://www.minrol.gov.pl/index.php?/eng/content/view/full/1469
SWEDEN
None
UNITED KINGDOM
http://www.defra.gov.uk/foodfarm/fisheries/protect/cetaceans.htm

2 REDUCTION OF DISTURBANCE

2.1 Anthropogenic Noise

BELGIUM
<p>In the framework of the construction and operation of offshore windfarms in Belgian waters, impact studies were performed, amongst others to try to assess the impact on marine mammals. Preliminary studies, describing predominantly the methodology on noise monitoring and marine mammal monitoring, including setting the baseline, were published in:</p> <p>Degraer, S. & Brabant, R., 2009. Offshore windfarms in the Belgian part of the North Sea: State of the art after two years of environmental monitoring. Royal Belgian Institute of Natural Sciences, Department MUMM, 287p., 8 annexes.</p> <p>Chapter 3: Haelters, J., Norro, A. & Jacques, T.G., 2009. Underwater noise emission during the Phase I construction of the C-Power windfarm and baseline for the Belwind wind farm.</p> <p>Chapter 10: p. 237-266: Haelters, J., 2009. Monitoring of marine mammals in the framework of the construction and exploitation of offshore windfarms in Belgian marine waters.</p> <p>In June 2009 the Minister responsible for energy has granted a fourth domain permit for the installation of windmills in Belgian waters. The group RENTEL had introduced a request for a domain permit for a park of 288 megawatt.</p> <p>In October 2009 the Minister responsible for energy has granted a fifth domain permit for the</p>

installation of windmills in Belgian waters. The group NORTHER had introduced a request for a domain permit for a park of 300 to 450 megawatt. The environmental permit procedure, subject to the decision of the Minister responsible for the North Sea, will start in 2010.

In February 2010 the Minister responsible for energy has changed the domain permit for the installation of windmills in Belgian waters for the group C-Power. Their new permit foresees a park of 216-318 megawatt and piling of monopiles instead of gravity based foundations.

DENMARK

BaltSeaPlan. An international project funded by the EU Interreg programme conducted in 2009-2011. One part of a work package, lead by NERI, includes studies of the effect of shipping and fast ferries on behaviour and distribution of harbour porpoises, studied by means of passive acoustic data loggers (T-PODs). Data collection will finish in 2009, results are pending analysis in 2010-2011.

Sprogø Offshore Wind Farm. A monitoring project based on passive acoustic monitors (T-PODs) was conducted during construction of a small wind farm (7 turbines) in the Great Belt. Comparison with baseline data collected in 2008 indicated limited impact of construction activities. Monitoring during operation will continue in 2010. A new publication on disturbances of porpoises:

Tougaard, J, OD Henriksen, LA Miller. Underwater noise from three types of offshore wind turbines: Estimation of impact zones for porpoises and seals. Journal of the Acoustical Society of America 125(6):3766-3773, 2009. Information on levels of disturbance (e.g. seismic surveys, new high-speed ferry routes, studies about acoustic impacts on cetaceans, etc.)

A revised set of guidelines for conduction of seismic surveys in Greenlandic waters was published in 2009 by the National Environmental Research Institute, NERI.

NERI participated in producing the background report (published by the International Council of the Exploration of the Seas, ICES) on effects on energy (e.g. noise) on marine mammals in European waters in relation to the Marine Strategy Directive.

FINLAND

None

FRANCE

A study (bibliography, part of a post-doc work) is currently under way for refining the (sonar/seismics) risk threshold definition, in terms of parameters (species, frequencies, signals). Models for predicting the radiated level of sonar and seismic systems are being improved.

The pinger (CETASAVAR) directional pinger is experimented on trawls is now commercialized.

A new acoustic deterrent device prototype using wideband signals at moderate levels with random frequency content and devoted to seismic surveys has been developed by Ifremer and installed for tests on an oceanographic vessel. Limited trials have been conducted, with significant results on common dolphins.

IFREMER now applies on his seismic surveys mitigation measures, based on the classical international recommendations (preliminary studies for risk evaluation, MMOs onboard, amplitude ramp-up for airgun arrays); the modelling for risk evaluation has been improved. The development and installation of an experimental PAM system on oceanographic vessels has been achieved (based on a three-hydrophone array, a dedicated receiving chain, and post-processing by freeware *PamGuard*), and put to use on two cruises; the practical

applicability of PAM in complement of the current mitigation measures is being studied.

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 data base to improve knowledge about the distribution and habitat use of abundant species. This information is taking into account for the planning of the use of sonar systems during trials.

To reduce the risk for marine mammals during explosions (disposal of ammunition in the Baltic Sea), the effect of an air bubble curtain for the attenuation of shock waves was examined. [Velte, Federal Ministry of Defence]

Together, three NGOs (GSM, GRD and NABU) cooperated with the Schleswig-Holstein Ministry of the Interior regarding detonations of WW II mines in Kiel Bight. Originally, their public awareness campaign initiated a bubble curtain study by the Ministry of the Interior using detonations of 350 kg mines. Noise measurements have been undertaken by the Navy's Technical Center for Ships and Naval Weapons (WTD 71/FWG). [Koschinski]

Spatial and temporal responses of harbour porpoises to pile-driving were investigated during the construction of two large wind farms in the North Sea using passive acoustic monitoring (T-PODs). One wind farm consisting of 91 mono-piles is located in the Danish North Sea, approximately 30km west of Esbjerg in water depths of 15m. Construction took place from May to October 2008. The other wind farm is located in the German North Sea, 90km north of the island Borkum in water depths of 30m. This wind farm consists of six tripod and six jacket founded turbines. Construction lasted from April to August 2009. In both areas a clear negative effect of the pile-driving procedure on the presence of harbour porpoises could be proven with a clear gradient along distance to the pile-driving location. At the Danish site, porpoise activity and possibly density was reduced near the construction site over the entire five months period that pile driving occurred. [Diederichs, Brandt et al., BioConsult SH]

In order to avoid any physical damage in porpoises and seals the use of seal scarers during offshore windfarm construction is mandatory in German waters. However, little information exists as to how far deterring effects of seal scarers on harbour porpoises reach and existing knowledge is ambiguous. Spatial and temporal effect of a seal scarer (Lofitech) on the acoustic activity of harbour porpoises were investigated. [Brandt, Diederichs et al., BioConsult SH]

Offshore wind farms: A research project funded by the Federal Agency for Shipping and Hydrography (BSH) has been continued to investigate effects of the construction in the first German Offshore test-field for windfarms "Alpha Ventus" close to Borkum Reef, Germany. Visual surveys by airplane and ship, as well as acoustic surveys with towed hydrophone and stationary acoustic monitoring using C-PODS are carried out.

Pile driving: A research project aiming at the development and testing of an efficient, cheap and easy-to-use air bubble curtain has been started. The system shall reduce the noise emissions from impact pile driving during the installation of monopiles in offshore areas. Funding is provided by the EU and the state of Schleswig-Holstein.

TTS in harbour porpoises: A research project has been started to verify the TTS level for impulsive noise (airgun signals) measured in a harbour porpoise (Lucke et al., 2009). Measurements will be conducted on a captive as well as on free-ranging animals. [Siebert, Forschungs- und Technologiezentrum Westküste]

LITHUANIA

No studies on anthropogenic noise have been taken.

NETHERLANDS

In an acoustic study by Au et al. (2009) the acoustic backscatter from Atlantic cod (*Gadus morhua*), gray mullet (*Chelon labrosus*), pollack, (*Pollachius pollachius*), and sea bass (*Dicentrarchus labrax*) was measured using simulated biosonar signals of the Atlantic bottlenose dolphin and harbor porpoise. The overall results suggest that there are sufficient acoustic cues available to discriminate between the four species of fish based on the echoes received, independent of aspect angle.

In another study by Kastelein et al. (2009) a psychoacoustic behavioral technique was used to determine the critical ratios (CRs) of two harbor porpoises for tonal signals with frequencies between 0.315 and 150 kHz, in random Gaussian white noise. Generally harbor porpoises can detect tonal signals in Gaussian white noise slightly better than most odontocetes tested so far. By combining the mean CRs found in the present study with the spectrum level of the background noise levels at sea, the basic audiogram, and the directivity index, the detection threshold levels of harbor porpoises for tonal signals in various sea states can be calculated.

A number of studies on underwater sound was conducted by TNO in 2008 and 2009. This included investigations of anthropogenic (e.g. associated with piling activities of wind farms) and natural sound sources (de Jong & Ainslie 2008; de Jong et al. 2009; Dreschler et al. 2009; Ainslie 2008; de Jong & Ainslie 2008). TNO also organized a symposium on underwater sound and biology on March 17th 2009 in Den Haag together with NWO (Netherlands Organisation for Scientific Research) financed by a number of Dutch ministries (V&W, LNV, Defensie).

The 3S group currently involving four main partners (FFI, TNO, SMRU and WHOI) conducted in May-June 2009 a research trial in Norwegian waters to investigate behavioral reactions of killer whales, pilot whales and sperm whales to Low Frequency Active Sonar (LFAS) and Mid Frequency Active Sonar (MFAS) signals, in order to establish safety limits for sonar operations (Kvadsheim et al. 2009).

References:

Au, W.W.L., Branstetter, B.K., Benoit-Bird, K.J., and Kastelein, R.A. (2009). "Acoustic basis for fish prey discrimination by echolocating dolphins and porpoises," J. Acoust. Soc. Am. 126, 460-467.

Ainslie, M.A., C A F de Jong, H S Dol, G Blacquière, C Marasini, Assessment of natural and anthropogenic sound sources and acoustic propagation in the North Sea, TNO report TNO-DV 2009 A085, February 2009.

de Jong, C.A.F. & M A Ainslie, Underwater radiated noise due to the piling activities for the Q7 Offshore Wind Park, ECUA 2008.

de Jong, C.A.F. & M A Ainslie, Underwater sound due to the piling activities for the Q7 Offshore wind park, TNO report MON-RPT-033-DTS-2007-03388, March 2008.

de Jong, C.A.F., G Blacquière, M A Ainslie, Measuring Underwater Sound: towards measurement standards and noise descriptors, TNO report TNO-DV 2009 C613, December 2009.

Dreschler, J., M A Ainslie, W H M Groen, Measurements of underwater background noise Maasvlakte 2, TNO report TNO-DV 2009 Cnnn, draft in preparation, December 2008.

Kastelein, R. A., Wensveen, P. J., Hoek, L., Au, W. W. L., Terhune, J. M., de Jong, C. A. F. (2009). "Critical ratios in harbor porpoises (*Phocoena phocoena*) for tonal signals between 0.315 and 150 kHz in random Gaussian white noise", J. Acoust. Soc. Am. 126, 1588-1597.

Kvadsheim, P., Lam, F-P, Miller, P., Alves, A.C., Antunes, R., Bocconcelli, A. van Ijsselmuide, S., Kleivane, L., Olivierse, M. and Visser, F. 2009. Cetaceans and naval sonar – the 3S-2009 cruise report. Available at: <http://rapporteur.ffi.no/rapporteur/2009/01140.pdf>

POLAND

There has been no research on the occurrence of underwater noise in the Polish zone of the Baltic Sea. Furthermore, no research attempt have been made on the effect of acoustic disturbance on the cetaceans.

On the other hand, as a result of an operation on 19th February 2009 to destroy Second World War German depth charges on the wreck of a sunken ship in the Hel region, after an application from the Ministry of Environment with substantive support from the Hel Marine Station and within the technical options available, the Navy carried out appropriate measures to secure against dangers to any Baltic cetaceans which could potentially be in the area. Of great importance is the fact that this region is among the network of areas protected by the Nature 2000 system and is , among other things, designed to protect the porpoises.

The disposal concerned weapons on a ship of the Kriegs-Fisch-Kutter class, submarine hunter version. It lay on the floor of the gulf of Gdańsk at the depth of 32 m about 1 km south of the port at Hel. Its deck held DM-11 depth charges with an explosive charge of 100 kg each (500 in total). They carried detonators, which made carrying them to the surface and disposing of them elsewhere impossible. The operation was co-ordinated by the Polish Navy's Maritime Operations Centre (COM Mar.Woj). The acoustic explosive power for the cetaceans was calculated at about 30 km.



Fig. 3 The detonation location and the marked safety zone

One preventive measure was the scaring of porpoises from the Puck Bay region just prior to the moment of detonation. The operation was conducted by the ship ORP "Mamry" which sailed a changing course from the centre of the bay using acoustic signals from its underwater station to scare off any potential porpoises in the area.

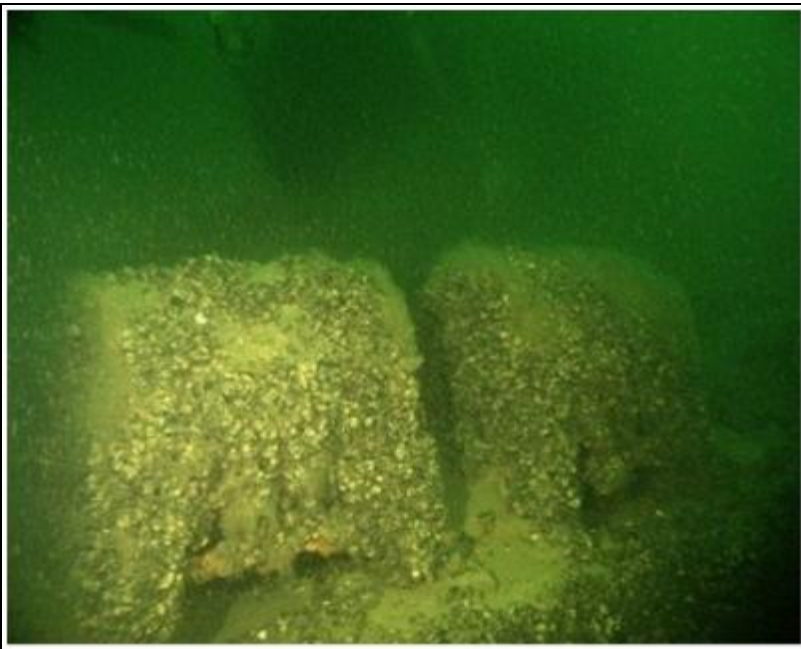


Fig 4. Mines placed on the deck of the sunken warship – the target for destruction

The final phase of the operation began with the confirmation that the region was secure. Scuba diver sappers went under the surface and attached charges to the depth charges which would ensure that they detonated simultaneously. The planned detonation was carried out at 14:30.



Fig. 5 An image of the explosion on the sea's surface (photo: J. Abramowicz)

The scale of the explosion was smaller than originally expected. Specialists hypothesized that some of the TNT which had been underwater for over 60 years could have decomposed and lost its original power. Post-operation reconnaissance showed that natural losses at the explosion's location were not observed.

SWEDEN

In 2008 a monitoring study of noise from leisure boats was carried out. Two sites, known to have intensive leisure boat traffic, were visited for one week each: Sandhamn in the outer Stockholm archipelago and Västervik, a coastal town some 200 km south of Stockholm

A hydrophone test rig was custom made for the project. It turned out to work fine, after some adjustment of the anchoring system. The data acquisition system also worked precisely as intended, and proved to be very reliable.

The first site, at the ship lane leading to Sandhamn, was visited in week 29, 2008. The data acquisition resulted in two different data sets: 1) remote recordings of boats passing in the ship lane, with photographs of each boat to reveal type and approximate speed, and 2) recordings of boats passing through the hydrophone gate, with detailed info on boat mark, engine power, propeller type and average cruising speed. The latter allowed for source level to be calculated. Also the use and type of echo sounder was asked for.

A total of 176 boats were recorded on the Sandhamn site, of which 8 ran through the gate. The vessels run through the gate ranged from medium sized cabin boats to jetskis. All but 2 of the 176 were photographed. One of the boats running through the gate failed to provide info on its specifications and speed. For the remotely recorded boats, the estimated distance to the hydrophone gate ranged from 50 to 300m.

On the second site, visited in week 31, 2008, the gate was deployed in between two ship lanes leading to the Västervik town. Like at Sandhamn, two different data sets were acquired, remote recordings of boats passing by in the two ship routes, and recordings of boats passing through the gate.

A total of 179 boats were recorded on the Västervik site, of which 10 run through the gate. One of the latter was considered too big to pass through the gate; instead it was run parallel to the gate, as close as possible. For the remotely recorded boats the distance to the gate varied from 50m to 300m.

So far the acoustic data has not been analyzed. Although the basic analysis of software has been developed, an automated routine is being developed to facilitate the processing of this large data set. Also the source tracing algorithms are still to be refined and tested in order to make the source level calculations possible. These algorithms include autocorrelation in order to calculate time of arrival differences between the five hydrophones in the gate. This is more complicated to do with continuous noise, compared to e.g. sonar clicks or frequency modulated dolphin whistles. So far the analysis indicates that the frequency spectrum of the noise extends to above 100 kHz. The source levels, as expected, were the highest from the outboard and semi-outboard boats, with fast revolution propellers. Also the jetskis were very noisy. An unexpected finding was that a large proportion of the boats had continuously running echosounders, many of which transmitted at frequencies audible to marine mammals.

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 2008-2009' report. This report is available on request.

DECC recently prepared a report, jointly with the University of Aberdeen and Lighthouse Field Station, to provide the results of acoustic propagation modelling and prediction of underwater noise from seismic survey operations proposed for the Moray Firth region during 2010 and/or 2010. The report summarises operational and site specific data for the region

based on the modelling of underwater noise propagating through the middle of the survey region. Additional modelling has also been undertaken to investigate the underwater noise propagating into shallower coastal waters inhabited by the bottlenose dolphin and porpoise.

Defra and the UK Ministry of Defence (MoD) have set up a Military Underwater Sound Stakeholder forum. This gives the opportunity for industry, non-government organizations and other interested stakeholders to engage directly with government to raise their concerns. Most recently, these discussions have helped lead to the development of a real-time alert procedure for naval training operations. This enables local information on unusual cetacean sightings, e.g. the presence of a species group closer to shore than is usual, to be incorporated into the training schedule and for operations to be relocated if necessary.

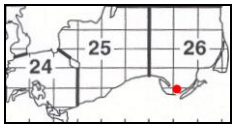
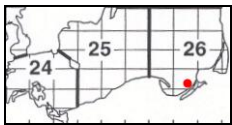
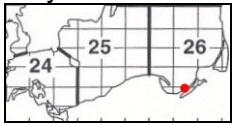
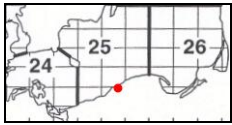
2.2 Ship Strike Incidents

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)
BELGIUM						
<22 Sep 2009	<i>Balaenoptera physalus</i>	Bone fractures damage to internal organs, external lesions	Yes	Refrigerated cargo ship <i>Summer Flower</i> , 169m, 12659 GT, cruising speed 22.5 kts	Unknown	Jan Haelters
The common fin whale, an adult female of 19.9m, entered the port of Antwerp on the bulb of the cargo vessel <i>Summer Flower</i> , on a journey from Colombia to Antwerp. The state of preservation of the carcass indicated that the animal had died 2-3 days before, so presumably off the coast of Portugal or Spain. The animal had been in a good physical condition before death. Its weight was estimated at 40 t. The incident was reported in detail to the IWC.						
DENMARK						
None						
FINLAND						
None						
FRANCE						
None						
GERMANY						
None						

LITHUANIA						
None						
NETHERLANDS						
None						
POLAND						
None						
SWEDEN						
1 April 2009	Harbour porpoise	Probably killed by a boat propeller	yes	?	Lat N58 56, 124 Long E11 8, 547	Anna.roos@nrm.se
UNITED KINGDOM						
None						

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
BELGIUM			
None			
DENMARK			
None			
FINLAND			
None			
FRANCE			
None			
GERMANY			
None			
LITHUANIA			
None			
NETHERLANDS			
None			

POLAND			
17-20. 02.2009	<p>Gulf of Gdańsk</p> 	Bycatch (GNS)	Harbour porpoise (<i>Phocoena phocoena</i>)
25.04. 2009	<p>Gulf of Gdańsk</p> 	Bycatch (GNS)	Harbour porpoise (<i>Phocoena phocoena</i>)
21.07. 2009	<p>Gulf of Gdańsk – Krynica Morska</p> 	Stranded	Harbour porpoise (<i>Phocoena phocoena</i>)
05.10. 2009	<p>Middle Coast – Ustka</p> 	Stranded	Harbour porpoise (<i>Phocoena phocoena</i>)
SWEDEN			
None			
UNITED KINGDOM			
22/07/09	Scotven Bay, North Uist, Scotland	Mass stranding	Five white beaked dolphins (<i>Lagenorhynchus albirostris</i>) live stranded and were subsequently refloated by local volunteers. - further details available on request from CSIP
Various (2009)	Various	Mass stranding	Five other live stranding events involving two animals in each event (variety of species) in the UK during 2009. Several outcomes- further details available on request from CSIP

*Two or more animals

2.4 Pollution and Hazardous Substances

BELGIUM	
None	

DENMARK
Dietz, R, Outridge P.M., Hobson K.A. 2009. Anthropogenic contribution to mercury levels in presentday Arctic animals – A review. Science of the Total Environment 407 (2009) 6120–6131.
FINLAND
None
FRANCE
Transfer and bioaccumulation of heavy metals (mainly mercury and cadmium) in cetaceans (LIENS/ULR) Work in partnership with the Marine Protected Area of the Iroise Sea, the University of Brest and Océanopolis and pollutants (TBT, lindane, fluorenten, indenopyren and BCB 153 has started)
GERMANY
None
LITHUANIA
None
NETHERLANDS
None
POLAND
The conduct of activities to reduce pollution are the consequence of the Convention on the Protection of the Marine Environment In the Baltic Sea Area (1992) signed by Poland and are regularly reported to the appropriate groups of the Baltic Marine Environment Protection Commission (HELCOM).
SWEDEN
The Museum of Natural History in Stockholm have initiated a 3-year study on several contaminants in harbour porpoises from Swedish waters. The study is funded by the SEPA. The first results will be available within a year.
UNITED KINGDOM
In 2009, analyses of long-term temporal trends in blubber concentrations of chlorobiphenyls (PCBs) (n=440; 1991-2005) and brominated diphenyl ethers (PBDEs) (n=415; 1992-2008) in UK-stranded harbour porpoises were conducted (Law et al. 2010; Law et al. <i>in review</i>). A non-parametric statistical method was used and potential confounding factors (area, season, by-caught or stranded, age class, sex, blubber thickness and lipid content) were investigated and found not to confound any of the trends identified. For PCBs, a standard suite of 25 CB congeners was determined throughout the study period and show a decline that is much slower than for organochlorine pesticides (e.g. DDTs). It also shows regional differences across the UK (e.g. lowest levels in Scotland). The reason for the slow decline in PCBs is likely due to both continuing diffuse inputs from e.g. PCB-containing materials in storage and in landfills where these were disposed of prior to the more stringent requirements for such sites being enacted, and to the substantial reservoir of PCBs already in the marine environment. Further efforts to limit or eliminate PCB discharges to the marine environment

are still needed. Statistically robust case-control studies show strong evidence for PCB-induced infectious disease mortality in UK-stranded harbour porpoises (at mean blubber PCB concentrations around 20-25mg/kg lipid weight) (Jepson et al., 2005; Hall et al 2006). Even greater concerns exist in other species where the mean blubber PCB concentration in UK-stranded bottlenose dolphins is 100mg/kg lipid weight (n=15) (Jepson et al 2008) and 225mg/kg (n=5) in killer whales for the same period 1992-2005 (CEFAS data).

For BDEs, nine congeners were: BDE28, BDE47, BDE66, BDE85, BDE99, BDE100, BDE138, BDE153 and BDE154. The maximum Σ BDE concentration observed was 15.7 mgkg⁻¹ lipid wt in an animal which died in 1993. The median concentrations peaked around 1998, and have reduced by between 55% and 76% to 2008. The BDE congeners found in UK marine mammals arise primarily from the penta-mix PBDE product, which was banned in the EU in 2004.

A study was conducted by Sinead Murphy while based at the Sea Mammal Research Unit examining the effects of contaminants on the reproductive status of porpoises and common dolphins in a study funded by ASCOBANS.

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.


Jepson, P.D., Tregenza, N. and Simmonds, M.P. (2008) Disappearing bottlenose dolphins (*Tursiops truncatus*) – is there a link to chemical pollution? (Scientific Committee of the *International Whaling Commission* 2008)

Law, R.J., Bersuder, P., Barry, J., Deaville, R., Reid, R.J., Jepson, P.D. (2010) Chlorobiphenyls in the blubber of harbour porpoises (*Phocoena phocoena*) from the UK: levels and trends 1991-2005. *Marine Pollution Bulletin* 60, 470-473.

Law, R.J., Barry, J., Bersuder, P., Barber, J.L., Deaville, R., Reid, R.J., Jepson, P.D. Levels and trends of BDEs in blubber of harbour porpoises (*Phocoena phocoena*) from the UK, 1992-2008. (in review)

2.5 Other Forms of Disturbance

BELGIUM
A case against Belgium by the European Commission (case 2003/2081) for not complying with article 12, 1a, of Directive 92/43 (bycatch of porpoises in recreational activities), was “closed (...) following the adoption of new Flemish legislation strengthening the protection of species such as porpoise” (25 June 2009). In this new Decree, that came into force on 1 September 2009, no concrete measures or basis for measures regarding recreational beach fisheries are foreseen, and no specific protection measures for porpoises are taken up. Also no new measures for this kind of recreation were taken by the authorities competent for marine fisheries
DENMARK
None
FINLAND
None

FRANCE
None
GERMANY
None
LITHUANIA
There is no information.
NETHERLANDS
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. Both boat surveys and the deployment of stationary hydrophones (T-PODs) have been used to acquire the necessary baseline data. The results of the study indicate that harbour porpoises use the area of the wind farm after construction. The data will be published in 2010 when the final report of the study has been completed.
POLAND
<p>The use of speedboats and jet skis s increasing in the Polish zone of the coast. The growth of recreational services in the form of fast hard hull dinghy cruises which offer dozens of cruises daily at several locations along the Polish coast is particularly evident. Research on the development of scale of this phenomenon has not yet been carried out, nor have any cases of direct collision with cetaceans been reported.</p> 
<p>Fig.6. An example of the recreational use of hard hull dinghies In the Hel region (Puck Bay).</p> <p>There have been reports of infringements of legal regulations (Regulation No.55/06 of the Voivode of the Pomerania Province of 15th May 2006 on the Coastal Landscape Park) which limit the use of speedboats on the protected bodies of water, i.e. the Coastal Landscape Park in the internal section of the Bay of Puck, which are part of the Nature 2000 system and BSPA HELCOM set up to protect the porpoises, among other things.</p>
SWEDEN
None

UNITED KINGDOM

Between 1992 and 2004, incidences of acute and chronic gas embolic lesions have been identified in a number of species: short-beaked common dolphins (5 cases), Risso's dolphins (4 cases), harbour porpoises (2 cases) a Sowerby's beaked whale and a Blainville's beaked whale in UK waters (Jepson et al., 2005b; Jepson, 2006). Subsequent to these, no additional observations of gas emboli were observed in animals stranding in UK waters apart from a single case in a harbour porpoise from Northern Ireland in 2007 (Tony Patterson, pers com) and a Risso's dolphin in Wales in 2009.

3 MARINE PROTECTED AREAS FOR SMALL CETACEANS

BELGIUM

A study was done concerning potential marine protected areas (MPAs) in the implementation of the Habitats Directive in Belgian waters. It concluded that, while seasonally relevant numbers/densities of harbour porpoises occur in Belgian waters, it was not opportune to establish MPAs specifically for porpoises, given their high mobility and the fact that it was not possible to indicate specifically important areas on the basis of the data available. The results of the study were subject to public consultation from 25 January until 28 February 2010.

Degraer, S., U. Braeckman, J. Haelters, K. Hostens, T. Jacques, F. Kerckhof, B. Merckx, M. Rabaut, E. Stienen, G. Van Hoey, V. Van Lancker & M. Vincx (2009). Studie betreffende het opstellen van een lijst met potentiële Habitatrichtlijn gebieden in het Belgische deel van de Noordzee. Eindrapport in opdracht van de Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, Directoraat-generaal Leefmilieu. Brussel, België. 93 pp. (in Dutch).

DENMARK

In 2009 17 NATURA2000 sites have been established in the Danish waters based on satellite taggings, acoustic surveys and aerial surveys.

FINLAND

None

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 present in 39 and Harbour porpoise in 37, both on the Channel and Atlantic coast.

Council Management Plan of the Marine Protected Area in Iroise Sea (West Brittany) in progress.

National Agency for the Marine Protected Areas (Brest): work has been started for the creation of others MPA, through a national strategy

GERMANY

In June 2009, UNESCO declared the Wadden Sea as World Heritage site. Knowledge on

distribution, abundance and habitat use of harbour porpoises in the Wadden Sea area is restricted to the offshore areas, especially west of the islands Sylt and Amrum. Due to its importance as a breeding area, it was designated as a 'whale sanctuary' in 1999. However, little is known about harbour porpoises in the water of the Inner Wadden Sea. The Inner Wadden Sea is characterised by a complex system of channels and streams alternates with exposed mudflats and sand banks. A four-month study on the occurrence of harbour porpoises was conducted within one tidal system in the Inner Wadden Sea area east of Sylt using static acoustic monitoring (SAM). Three C-PODs were deployed at different locations within a channel in the Lister basin since August 2009. All C-POD's regularly detected numerous harbour porpoise clicks and thus provided detailed information with a high temporal resolution on harbour porpoise presence in the tideways. This is the first evidence of regular harbour porpoises presence in tideways more than 20km away from the open sea. [Hoeschle, Brandt et al., BioConsult SH]

LITHUANIA

No protected areas for cetaceans are identified in Lithuania.

NETHERLANDS

A study started in 2006 to identify candidate Special Areas of Conservation (SACs) under the Habitats Directive and OSPAR in the Dutch sector of the North Sea. In the Dutch Continental Shelf and Coastal Waters 4 sites have been identified as marine areas: Doggersbank, Klaverbank and two parts of the coastal zone, 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 and the two coastal areas are about to be designated by the Dutch minister. They 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. The conservation target will probably be formulated as follows: "Maintain the extent and quality of habitat in order to maintain the population".

http://www2.minInv.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

On 23-25 November a Nature 2000 biogeographical seminar took place In Sopot, Poland. As a result of the seminar, the representatives of the European Commission decided that the expansion of areas incl. PLH 220032 of the Puck Bay and the Hel Peninsula to protect the porpoises was essential in the Polish zone of the Baltic. Furthermore, it was decided to supplement and correct the evaluation of homes and species in the standard data forms in order to discover the presence of porpoises, among other species, in selected sections of Polish Baltic waters.

On 31 December 2009, the Minister of the Environment selected five areas protected for the needs of the HELCOM Baltic Sea Protected Area. There area areas dedicated to porpoise protection, among other things, in the Pomerania and the Puck Bays.

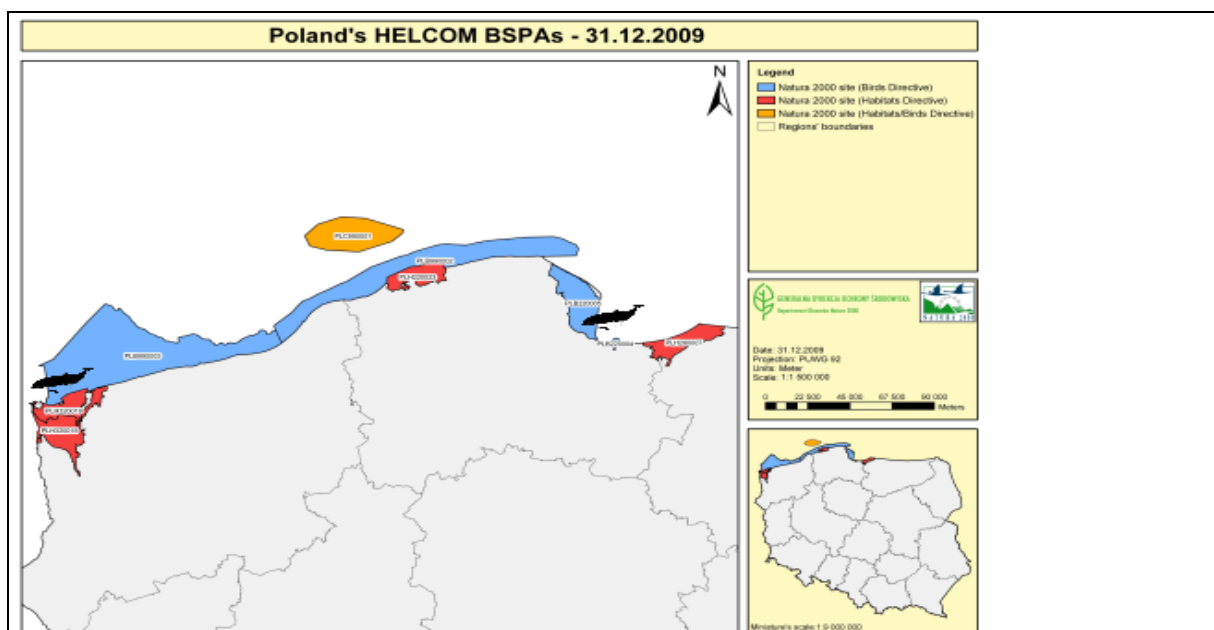


Fig. 7 Map of the Polish protected areas nominated by the Minister of the Environment to the HELCOM Baltic Sea Protected Areas.

SWEDEN

After the assessment by the EU Commission of the Natura 2000 network in the Baltic and Atlantic regions, SEPA has been commissioned to report to the government of possibilities to add harbour porpoise to the species list in some existing sites as well as considering designating new ones on the west coast of Sweden, pending the results of the survey in Skälderviken. At the moment there are three Natura 2000 sites with harbour porpoise. The sites are Stora Middelgrund, Vrångöskärgården and Koster-Väderöfjorden.

UNITED KINGDOM

One potential offshore SAC, the Wyville Thompson Ridge, identified for its habitat features, lists bottlenose dolphins. This site is likely to be submitted to the European Commission for consideration in October 2010 (see (<http://www.jncc.gov.uk/page-4535>)).

Work is continuing in the UK to identify additional sites for harbour porpoise. A public consultation has recently been completed for three offshore sites which were identified for their habitat features, but also list harbour porpoises (see <http://www.jncc.gov.uk/page-3995>). These are North West Rockhall pSAC, Haisborough, Hammond and Winterton pSAC and Inner Dowsing, Race Bank and North Ridge pSAC. The Government has yet to decide whether to submit these pSACs to the European Commission in October 2010.

3.1 Sources of GIS data of the boundaries (and zoning, if applicable)

BELGIUM

None

DENMARK

None

FINLAND

None

FRANCE
<p>Agence des aires marines protégées Président : Jérôme Bignon, député de la Somme Directeur : Olivier LAROUSSINIE</p> <p>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 Ministère de l'Écologie, de l'Énergie du Développement durable et de la 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>
GERMANY
http://www.bfn.de/habitatmare/de/schutzgebiete-uebersicht.php
LITHUANIA
None
NETHERLANDS
<p>More information on the marine Natura2000 sites in the Netherlands can be obtained at: http://www.noordzeenatura2000.nl/</p>
POLAND
<p>Precise data on the borders of these areas is held by the General Directorate for Environmental Protection in Warsaw (www.gdos.gov.pl/en/kontakty). They are also represented in the website:http://natura2000.gdos.gov.pl/natura2000/en/jednostki.php</p>
SWEDEN
None
UNITED KINGDOM
None

B. SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

BELGIUM
<p>See 2.1.</p> <p>An overview was made of strandings and sightings of porpoises in Belgium and the Netherlands, together with data on population structure of stranded animals, threats such as bycatch, and proposals for measures. The report was commissioned by the International Fund for Animal Welfare (IFAW) and can be consulted online. Reference: Haelters, J. & Camphuysen, K., 2009. The harbour porpoise in the southern North Sea: abundance, threats and research- & management proposals. Royal Belgian Institute of Natural Sciences (RBINS/MUMM) and the Royal Netherlands Institute for Sea Research (NIOZ); report commissioned by the International Fund for Animal Welfare (IFAW); 56 p.</p> <p>And a summary in: Bycatch Communication Network Newsletter Issue 13 Aug-Sept 2009.</p>
DENMARK
<p>The population structure of harbour porpoises based on genetics have been carried out in the Baltic region and is now published:</p> <p>Wiemann, A., Andersen, L.W., Berggren, P., Siebert, U., Benke, H., Teilmann, J., Lockyer, C., Pawliczka, I., Skora, K., Roos, A., Lyrholm, T., Paulus, K.B., Ketmaier, V. & Tiedemann, R. 2010. Mitochondrial Control Region and microsatellite analyses on harbour porpoise (<i>Phocoena phocoena</i>) unravel population differentiation in the Baltic Sea and adjacent waters. Conservation Genetics 11:195–211. Other new publications of interest:</p> <p>Eskesen, I.G., Teilmann, J., Geertsen, M.B., Desportes, G., Riget, F., Dietz, R., Larsen, F., Siebert, U. (2009). Stress level in wild harbour porpoises (<i>Phocoena phocoena</i>) during satellite tagging measured by respiration, heart rate and cortisol. Journal of the Marine Biological Association of the United Kingdom – JMBA 89(5): 885-892.</p> <p>Galatius A., Sonne, C., Kinze, K.K., Dietz, R. and Bech Jensen, J.E. 2009. Occurrence of the degenerative disease Spondylosis deformans in a museum sample of white-beaked dolphins (<i>Lagenorhynchus albirostris</i>) from Danish waters. J Wildlife Dis. 45(1): 19-28.</p> <p>Tougaard, J., Carstensen, J., Teilmann, J., Skov, H., Rasmussen, P. (2009). Pile driving zone of responsiveness extends beyond 20 km for harbor porpoises (<i>Phocoena phocoena</i>, (L.)), Journal of the Acoustical Society of America 126(1):11-14.</p>
FINLAND
<p>Finland will take part to SAMBAH (Static Acoustic Monitoring of the Baltic Sea Harbour porpoise) project. Project is partly funded from EU Life+ programme. In the project, 300 SAM units will be used over a two years period (2011-2012). 45 units will be deployed in Finnish waters. More info available on http://www.sambah.org.</p>
FRANCE
<p>Monitoring of the coastal group of bottlenose dolphins (Oceanopolis Brest in Iroise Sea), photo-identification, home range, population structure...</p> <p>Photo identification of bottlenose dolphins of the Bay of Mont Saint Michel and Cotentin (GECC, GMN, AL Lark)</p> <p>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</p>

on the marine environment).

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

Systematic boat survey of cetaceans in relation to oceanographic, planktonic and pelagic fish patterns in the Bay of Biscay (PELGAS Program, Ifremer, CRMM/ULR : PELGAS spring survey carried out yearly on the continental shelf of the bay of Biscay: Pelagic fish, plankton, physical parameters and top predators are recorded simultaneously IBTS Program, Ifremer, CRMM/ULR: IBTS winter survey carried out yearly on the english channel area: Pelagic fish, plankton, physical parameters and top predators are recorded simultaneously

EVOHE: Program Ifremer, CRMM/ULR: EVOHE fall scientific fishing sampling carried out yearly on the bay of Biscay with top predators recorded on line transect.

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

Genetic study on harbour porpoise (collaboration between the university of Brest and Oceanopolis Brest).

Cetacean distributions and relative abundances were surveyed over the shelf of the Bay of Biscay (May) and English Channel (January) by CRMM/ULR in order to determine relative abundances, preferential habitats and relationships with distribution of small pelagic fish as determined by simultaneous acoustic survey carried out by Ifremer/ Instituto Español de Oceanografía (IEO) research vessel Thalassa. This survey followed a standardized protocol in use since 2003 in Bay of Biscay area (PELGAS survey) and since 2007 in the English Channel (IBTS survey) and since 2009 in the bay of Biscay in fall. In 2007 and 2008, collaboration between CRMM/ULR and the Centro Oceanográfico de Vigo (IEO) allowed data on cetacean distribution to be collected by using standardized protocol and same research vessel during April and September pelagic fish survey in the south of the Bay of Biscay (PELACUS survey).

Aerial surveys carried out by Oceanopolis Brest using line transect protocol to estimate the abundance and the seasonality of small cetaceans in Iroise sea (west Brittany)

GERMANY

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 prototypes of identification tables of marine mammals were prepared, containing information on species characteristics, behaviour, abundance and distribution. [Velte, Federal Ministry of Defence]

A combined effort of the county of Wesermarsch and the Society for Dolphin Conservation Germany to detect harbour porpoises passing the river Weser by PODs is ongoing. See: <http://www.delphinschutz.org/projekte/weser/index.htm> [Czeck, National Park Administration Wadden Sea of Lower Saxony]

LITHUANIA

The LIFE project "Marine Protected Areas in the Eastern Baltic Sea" (LIFE05 NAT/LV/000100) is implemented in Estonia, Latvia and Lithuania in 2005-2009 (www.balticseaportal.net). One of the goal of this project – to inventory the marine mammals.

For detecting Harbour porpoise and measuring its activity passive submerged porpoise detectors (T-PODs) was used. The project inventory covered the whole length of the Eastern Baltic Sea coast from Lithuania to the Gulf of Finland. Arrays of T-PODs was deployed in pre-selected places (6 T-PODs in each Baltic country). In 2007 and 2008 different pre-selected areas was used, so different project areas was covered. These detectors were physically placed in the sea and every three months the data from T-PODs were

downloaded and batteries exchanged.

The T-PODs for harbour porpoise detection have been purchased and programmed, later on deployed to first survey site for survey. So far, within the year 2007/2009, no harbour porpoises were detected near deployment locations.

NETHERLANDS

IMARES conducted aerial surveys within a research project funded by LNV and RWS to cover part of the southern coastal Dutch waters to estimate abundance of harbour porpoises during different times of the year. The first aerial surveys using distance sampling methodology and were conducted in May 2008 and November 2008. In 2009 surveys were conducted in February to April, August and November and the results can be found in Scheidat & Verdaat (2009). Analyses of habitat use and abundance estimates are ongoing and will be expected to be published in 2010.

The NZG Marine Mammal Database is part of the Dutch Seabird Group (NZG) and was 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 programmes: seawatching and offshore seabird surveys. The first programme (NZG/CvZ) became established in 1972, offshore surveys started in the late 1980s. For 2009 the data entry is still ongoing. From 1 January to 9 March 225 sightings of harbour porpoises were registered (number of individuals was 733). The database can be accessed at: <http://home.planet.nl/~camphuys/Cetacea.html>.

The Rugvin Foundation is a volunteer-based organisation conducting cetacean surveys in the Southern North Sea and the Oosterschelde estuary. Monthly cetacean surveys are being conducted from the bridge of the Stena Line ferry between Hoek van Holland and Harwich. And next to that, in the Oosterschelde estuary, research is being carried out to estimate the minimum number of Harbour Porpoises and calves throughout the year (a minimum of 37 individuals were counted during the September 2009 survey) and to determine whether Harbour Porpoises pass the Storm Surge Barrier (using C-Pods).

Information on cetacean strandings are collated in a central database on the website of Naturalis (www.walvisstrandingen.nl).

References:

Scheidat, M. & H. Verdaat. 2009. [Distribution and density of harbour porpoises in Dutch North Sea waters](#). IMARES report C125/09. Available upon request from meike.scheidat@wur.nl

POLAND

Regional research activity which provides information on the occurrence of harbour porpoises in the Polish Baltic zone included a project on the active protection of porpoises in the Puck Bay. It was however, limited exclusively to that area. Data from POD detectors located at the entrance to the bay confirmed the presence of porpoises here. This research will be continued for the next year. The report of its achievements will be presented In 2011.

Additional data are expected from a project carried out by the WWF-Poland and SMIOUG-„Support Restoration of Baltic Mammals”.

Indirectly, information about porpoise occurrence can be concluded from voluntary fishing reports on bycatch. In 2009 there were two reports which covered the southern part of the Gulf of Gdańsk.

A new project which has been designed to provide data on the distribution of porpoises in Polish maritime areas is the SAMBAH Project (“Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise”) subsidized by EU LIFE+. Two Polish research institutes – SMIOUG and

IMGW became its co-beneficiaries in 2009. It is planned to finish this project in 2014.

A map of the distribution of reports of bycaught, stranded, and observed porpoises in the Polish zone of the Baltic for the years 1990-2009 can be found in: Pawliczka I. 2009. Czynna ochrona fok i morświnów w Polsce (*Active Protection of Seals and Porpoises in Poland*). Pages: 241-260 in: B. Bobek, J. Mikoś i R. Wasilewski (eds) Gospodarka Łowiecka i Ochrona Dzikich Zwierząt na Pomorzu Gdańskim (*The Fishing Economy and Protection of Wild Animals on the Baltic Coast*). Polskie Towarzystwo Leśne, Regionalna Dyrekcja Lasów Państwowych w Gdańsku, Gdańsk 2009

SWEDEN

A Life Nature application for the SAMBAH project was approved and the Grant Agreement was signed in November 2009 by Kolmårdens Djurpark as the Coordinating Beneficiary. This project is running over 5 years (2010-2014), and aims at producing an estimate of the total abundance and distribution of harbour porpoises in the Baltic. Three of the countries around the Baltic (Finland, Poland and Denmark) are associated Beneficiaries, whereas the Baltic States will be subcontractors to Sweden. The project is based upon data from passive acoustic porpoise echolocation loggers, which will be kept in operation during 2011 and 2012. This data will be used as input to state of the art population density statistics, and subsequently allow for habitat modelling.

The abundance of harbour porpoise has been investigated in "Skälderviken", a bay on the south western coast of Sweden. PCL:s Porpoise click loggers were being used. The fishing effort of gillnets in the same areas was surveyed and will be compared to the porpoise abundance. If the results show a high abundance of harbour porpoise, Sweden will consider designating an MPA for harbour porpoise in the area.

UNITED KINGDOM

One of the key requirements of Article 11 of the Habitats Directive is the development of a strategic monitoring and surveillance programme for cetaceans to provide an ability to undertake systematic assessments. Such a programme is currently under development by JNCC as part of the UK Marine Monitoring and Assessment Strategy (UKMMAS), through collaboration with the other Countryside Agencies and the Sea Mammal Research Unit (University of St Andrews). The programme will take a 'natural' population approach and JNCC are therefore discussing how to take an internationally coordinated approach with other Member States through ICES and ASCOBANS. As of this mechanisms are being developed that will enable as much of the cetacean surveillance undertaken in European waters by agencies, research bodies and the voluntary sector to be included and used in the conservation status assessments through JCP, a web-based portal for effort-related sightings data.

At the individual country level, surveying and monitoring has been undertaken in Welsh waters for various species including bottlenose dolphin, harbour porpoise, Risso's dolphin and baleen whales.

In Scotland, a variety of projects are ongoing focusing on abundance, stock structure and diet of killer whales, distribution and habitat preferences of white beaked dolphins, and the distribution, abundance and population structure of bottlenose dolphins. In England, assessing distribution and abundance of white beaked dolphins has recently commenced off the Northumberland coast.

The Northern Ireland Environment Agency (NIEA) have implemented a systematic cetacean monitoring programme. Monthly shore-based effort watches are now conducted from 12 key sites using a standard monitoring methodology. This provides data from inshore waters to address local management issues and the potential identification of SACs in future years

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4.2 New Technological Developments

BELGIUM
None
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
None
NETHERLANDS
Within the mainframe of the project We@Sea a 12 channel acoustic cetacean detector was developed for permanent underwater use on the bow of FRV "Tridens". Main ambition of this development is to have a system, which supports the direction of visual observations and to

increase the signal to noise ratio. In this perspective the system benefits of the relatively low noise condition underneath the ship's bow. Cetacean echolocation signals are received through a ship-based forward-facing semi-circular 12-channel hydrophone array.

The dome shell was designed to withstand slamming forces developed on the bow of FRV "Tridens" at a sailing speed of 17 knots according the classification of the American Bureau of Shipping High speed naval craft 2003. The system consists of conditioning and digitizing hardware. A software framework was developed to distinguish echo-location signals of cetaceans, to identify cetacean species and to plot the acoustic encounters as an overlay on a oceanographic GIS map together with the ship's course. The software supports detection of dolphin vocalisations in a range of 2 to 150 kHz and also a number of operational functions such as replay and simulation modes. The equipment was tested at sea on the former pilot boat "Kluut" while artificial echo-location signals were projected at known distances from off another vessel "Blue Marlin". After the first successful fieldtest the software modules were further adapted and tuned. This system offers great opportunities for high speed sailing and operations on smaller vessels, which enables surveys through hazardous coastal zones, like windfarms, while new software functions, like mapping and sorting of detections are standard and will reduce post analysis time. This new approach has great potential does not require deck handling/time and is a serious candidate to replace the current towed techniques.

POLAND

None

SWEDEN

None

UNITED KINGDOM

None

4.3 Other Relevant Research

BELGIUM

none

DENMARK

None

FINLAND

None

FRANCE

The French stranding network is nationally coordinated by CRMM/ULR (Centre de Recherche sur les Mammifères Marins, Université de La Rochelle) 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 CRMM/ULR. Statistics of stranding for the coast of France in 2008 indicate more than 800 cetaceans reported (2009 compilation not yet ready), data input in

progress (CRMM/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).
GERMANY
<p>A pilot study about the classification of marine mammal signatures with methods of speech recognition (e.g. Hidden Markov Models) was conducted. The study will be continued for the next two years. [Velte, Federal Ministry of Defence]</p> <p>Collecting information about incidental strandings and sightings-by-chance is continued (see http://www.nationalparkwattenmeer.niedersachsen.de/master/C43559691_N28553490_L20_DO_I5912119.html) [Czeck, National Park Administration Wadden Sea of Lower Saxony]</p>
LITHUANIA
None
NETHERLANDS
An ongoing 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.
POLAND
None
SWEDEN
None
UNITED KINGDOM
Countryside Council for Wales (CCW) had 6 TPODs deployed in coastal locations in the Cardigan Bay SAC. The use of acoustic data loggers such as TPODs provide a method of collecting data continuously irrespective of light and weather conditions and is particularly useful for collecting data on rates of habitat use and revealing diel cycles of activity about which we currently know little. Bottlenose dolphin and harbour porpoise detection rates are negatively correlated and increased competition for limited prey may be a factor that may also be a reason for the rise in porpoise deaths resulting from attacks by bottlenose dolphin

C. USE OF BY-CATCHES AND STRANDINGS

5 POST-MORTEM RESEARCH SCHEMES

BELGIUM
Contact details of research institutions / focal point
<p>Jan Haelters, Royal Belgian Institute of Natural Sciences (RBINS), Department MUMM</p> <p>Thierry Jauniaux, University of Liège (ULg) Jan Haelters, Royal Belgian Institute of Natural Sciences (RBINS), Department MUMM</p> <p>Thierry Jauniaux, University of Liège (ULg)</p>
Methodology used (reference, e.g. publication, protocol)
<p>Standardised methodology, a.o. described in:</p> <p>Jauniaux, T., Garcia Hartmann, M., Haelters, J., Tavernier J. & Coignoul, F., 2002. Echouage de mammifères marins: guide d'intervention et procédures d'autopsie. Annales de médecine vétérinaire 146: 261-276</p> <p>Kuiken & Hartmann, G., 1991. Proceedings of the first ECS workshop on cetacean pathology: dissection techniques and tissue sampling. ECS newsletter 17.</p>
Collection of samples (type, preservation method)
<p>Depending on the state of decomposition, all relevant samples for toxicology, histopathology, parasitology, virology, bacteriology, genetics, diet and age are collected. In some cases cranium or entire skeletons are collected.</p> <p>Preservation: different according to the sample: formaldehyde, alcohol, freezing at –18°C or –80°C, tissue slide, ...</p>
Database (Number of data sets by species, years covered, software used, online access)
+20.000 samples, including some samples from animals stranded or bycaught in The Netherlands and France; samples originating from +900 animals of different species, including pinnipeds
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
<p>A web application is being developed which will contain data on strandings and sightings of marine mammals in Belgium (now available on www.mumm.ac.be), and allow for the provision of selected samples for dedicated scientific research: see:</p> <p>Jauniaux, T., De Cauwer, K., De Winter, J., Haelters, J., Jacques, T.G., Scory, S. & Coignoul, F., 2009. The Belgian Marine Mammal Biobank: a tool to stimulate tissue exchange. Report submitted to the meeting of the Advisory Committee of ASCOBANS, Bruges, 20-24 April 2009. Doc. AC16/44.</p>

DENMARK
Contact details of research institutions / focal point
Data on cetacean strandings are collected and compiled by the Nature and Forest and Nature Agency together with the Fisheries and Maritime Museum, Esbjerg (Lasse F Jensen)
Methodology used (reference, e.g. publication, protocol)
None
Collection of samples (type, preservation method)
None
Database (Number of data sets by species, years covered, software used, online access)
None
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None
FINLAND
Contact details of research institutions / focal point
None
Methodology used (reference, e.g. publication, protocol)
None
Collection of samples (type, preservation method)
None
Database (Number of data sets by species, years covered, software used, online access)
None
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None

FRANCE
Contact details of research institutions / focal point
Centre de Recherche sur les Mammifères Marins, Université de La Rochelle, La Rochelle CRMM/ULR willy.dabin@univ-lr.fr
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 and 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 15517 stranding recorded with 2689 individuals sampled
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
http://crmm.univ-lr.fr/ with interactive stranding maps
GERMANY
Contact details of research institutions / focal point
Lower Saxony: LAVES-Institute for Fish & Fishery Products Schleusenstr. 1, D-27472 Cuxhaven [Dr Ramdohr] Schleswig-Holstein: Forschungs- und Technologiezentrum Westküste (FTZ) Werftstr. 6, 25761 Büsum [Dr Siebert]
Methodology used (reference, e.g. publication, protocol)
Basic biological and anatomical data were collected and registered so far. Necropsy is postponed due to laboratory capacity. [Ramdohr, LAVES]

Post mortem examination were performed according to the Proceedings of the First ECS Workshop on Cetacean Pathology (Kuiken and Hartmann, 1993, Siebert et al. 2001, 2006). Measurement were taken in metric system. [Siebert, FTZ]

Collection of samples (type, preservation method)

Pathological samples will be collected and examined during necropsy if required. [Ramdohr, LAVES]

All organ systems were examined macroscopically and samples of lesions and different organ systems, including lungs, trachea, stomach (1st, 2nd, and 4th compartment), intestine, esophagus, liver, pancreas, thyroid gland, adrenal gland, kidney, urinary bladder, testis, uterus, ovary, spleen, thymus, pulmonary and intestinal lymph nodes, retropharyngeal lymph nodes, heart, aorta, skeletal muscles, rete mirabilis of the intercostal musculature, skin, blubber, brain, spinal cord, eye, bone, bone marrow, and tissue of the aural peribullar cavity, blood, urine etc. Formalin, alcohol, other special fixation, frozen at -20-30°C or 70-80°C, OCT etc. [Siebert, FTZ]

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

Data were collected and registered for administrative purpose so far. Scientific analysis is postponed. [Ramdohr, LAVES]

MySql, Postgresql, Access, Excel

Between 1990 and 2009 the following number of data sets has been collected per species (data recorded until 04.02.10):

Phocoena phocoena: 2647

Delphinus delphis: 5

Lagenorhynchus albirostris: 25

Lagenorhynchus acutus: 1

Stenella caeruleoalba: 1

Delphinapterus leucas: 1

Delphinapterus ampullatus: 1

Physeter macrocephalus: 6

Balaenoptera acutorostrata: 6

Balaenoptera physalus: 6

Globicephala melaena: 3

Tursiops truncatus: 1

Mesoplodon bidens: 1 [Siebert, FTZ]

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

Look at:

Collecting information about incidental strandings and sightings-by-chance is continued (see http://www.nationalparkwattenmeer.niedersachsen.de/master/C43559691_N28553490_L20_D0_I5912119.html) [Czeck, National Park

Administration Wadden Sea of Lower

Data should be put in an international data base after publication. Use and interpretation of data sets should be restricted. Exchange and comparison of all data collected in different countries. This will give a more precise picture of the different subpopulations of harbour porpoise. [Siebert, FTZ]

LITHUANIA
Contact details of research institutions / focal point
None
Methodology used (reference, e.g. publication, protocol)
None
Collection of samples (type, preservation method)
None
Database (Number of data sets by species, years covered, software used, online access)
None
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None
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 Janiaux 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 on the website of Naturalis (www.walvisstrandingen.nl). In 2009 (1.1.09 to 31.12.09) 478 harbour porpoises, 3 white-beaked dolphins, 1 killer whale and 1 <i>Mesoplodon bidens</i> were found on the beaches and 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 performed according to the procedure 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)
Hel Marine Station, Institute of Oceanography, University of Gdańsk as a consequence of research carried out as part of its statutory activities, collects data on dead porpoises and dolphins from either bycatch or stranded on the coast. Dead specimens, if they come to the Station, are analysed to the extent that the state of remains allow. The standard range of samples taking includes : <ul style="list-style-type: none"> - ascertaining the species - the location of the event - the specific or supposed cause of death - ascertainment of length and body mass - ascertainment of sex - taking fatty tissue for genetic investigation - taking teeth to ascertain the animal's age - a full post-mortem analysis and storage of biological samples following Kuiken & Hartmann 1993
Database (Number of data sets by species, years covered, software used, online access)
Data have been entered into a standard Access database since 1998. There is no online access to his database. The database contains 113 reports on bycatch or stranding of porpoises and 16 reports on other species of small cetaceans. <i>Stenella coeruleoalba</i> , <i>Lagenorhynchus albirostris</i> , <i>Lagenorhynchus acutus</i> , <i>Physeter catodon</i>)
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
Contact: Marine Station IOUG (Iwona Pawliczka iwona.pvp@ug.edu.pl)

SWEDEN
Contact details of research institutions / focal point
Anna Roos, Dep 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)
We follow a common protocol made for cetaceans
Collection of samples (type, preservation method)
Skin, blubber, kidney, muscle, liver, brain, lung, spleen, teeth etc are taken and stored frozen. Also if some organs are stored in formalin.
Database (Number of data sets by species, years covered, software used, online access)
We use a specially formed database, in MSQl. But older data is still also in Excel-sheets, since 1960s. No online access yet
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
The museum also hosts a web page where the public can report live porpoises: http://www.nrm.se/tumlare . It will be translated to English shortly.
UNITED KINGDOM
Contact details of research institutions / focal point
UK Cetacean Strandings Investigation Programme (CSIP). Contact point- Rob Deaville, Institute of Zoology, Regents Park, London, NW1 4RY, ENGLAND
Methodology used (reference, e.g. publication, protocol)
Methodology in Jepson <i>et al</i> (2005) followed (Jepson, P.D. (editor) (2005) Cetacean Strandings Investigation and Co-ordination in the UK 2000-2004. Final report to the <i>Department for Environment, Food and Rural Affairs</i> . Pp 1-79. http://randd.defra.gov.uk/Document.aspx?Document=WP01011_8244_FRP.pdf
Collection of samples (type, preservation method)
A range of samples are routinely collected according to the method of Jepson <i>et al</i> (2005). 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; <div style="padding-left: 40px;">stored frozen at -20°C or -80°C;</div> <div style="padding-left: 40px;">stored in 70% ethanol (parasites);</div> or in 10% buffered formalin (fixed samples)

Database (Number of data sets by species, years covered, software used, online access)
The CSIP holds data on over 9600 cetaceans which were found stranded around the UK between 1990 and 2009. In addition, detailed pathological data is also held on over 2700 UK stranded cetaceans which were necropsied by the CSIP during the same period. Data collected on strandings and during necropsies are now routinely recorded in a recently created web-accessed relational database (http://data.ukstrandings.org). A proportion of data held on this system will be made publicly available via the NBN gateway (http://www.nbn.org.uk/).
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
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. Institute of Zoology have recently submitted a proposal to the ASCOBANS Secretariat, on a feasibility study into the creation of a centralised point of access for selected data collected by stranding networks within the ASCOBANS region. If successful, it is hoped that this will be the first step towards the creation of a central database on strandings and necropsies, encompassing ASCOBANS Parties and Range

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
BELGIUM	
<i>Balaenoptera physalus</i> (1)	Ship strike
<i>Phocoena phocoena</i> (66)	Preliminary data: Total number of porpoises, including stranded animals, dead animals found at sea, animals delivered by fishermen: 66 Provisionally: Number of bycaught animals: 15 Number of animals died naturally: 9 Number of animals with unknown cause of death: 42
<i>Stenella coeruleoalba</i> (1)	Natural
<i>Lagenorhynchus albirostris</i> (1)	Unknown
This solitary striped dolphin, very rare in Belgian waters, was present in a dock in the harbour of Antwerp for two weeks, before being found dead, totally weakened. See: HaHaelters, J. & Verbelen, D., 2009. Gestreepte dolfijn in Antwerpse haven. Zoogdier 20(4): 30-31. Verbelen D. & Haelters J., 2010. Fonske duikt op in Antwerpse Haven. In: Herremans M., Berwaerts K., Driessens G., Guelinckx R., Hens M., Jacobs M., Jooris R., Lewylle I., Leysen K., Nijs G., Steeman R., Van de Meutter F., Van Dorsselaer P., Veraghtert W., Verbelen D., Verbeylen G., Verdonckt F. & Vermeersch G., 2010. Jaarverslag 2008 - 2009. Markante resultaten van Natuurpunt Studie. Rapport Natuur.studie 2010/1, Natuurpunt Studie, Mechelen : 51-52	

DENMARK	
The number of harbour porpoise strandings in Denmark in 2008 was much larger than previously reported, (223 individuals instead of 94). In 2009 a total of 137 harbour porpoise stranded in Denmark. Thus there has been a drastically increase in the number of strandings in Denmark, just as has been observed in Germany and Netherlands.	
FINLAND	
	None
FRANCE	
Delphinus delphis	79 necropsies
Phocoena phocoena	13
Stenella coeruleoalba	5
Tursiops truncatus	5
Grampus griseus	2
Globicephala mela	6
Halichoerus grypus	2
Ziphius cavirostris	1
Hyperoodon ampulatus	1
Orcinus orca	1
Balaenoptera physalus	1
Megaptera noveanglia	1
GERMANY	
Mecklenburg-Vorpommern: Phocoena phocoena: 52	Recorded strandings and bycatch, only partially necropsied [Dähne, German Oceanographic Museum]
Lower Saxony: Phocoena phocoena: 56 Mesoplodon bidens: 1 (not collected)	Recorded strandings, only partially to be necropsied (necropsies are postponed) [Ramdohr, LAVES-Institute for Fish & Fishery Products]
Schleswig-Holstein: Phocoena phocoena Mesoplodon bidens	262 (data recorded until 04.02.10) 1 [Siebert, FTZ]

LITHUANIA	
None	
NETHERLANDS	
Harbour porpoise	92 total, unknown cause of death 15%, cachexia 20%, starvation 9%, infectious disease 14%, other causes of death 1% and by-catch 41%
POLAND	
None	
SWEDEN	
Harbour porpoise 21 individuals were sampled at SMNH during 2009: 17 of them died in 2009, 2 in 2008 and 2 in 2007. Of these, 10 carcasses were sent to SMNH for necropsy, the rest were only samples or parts of and were sent to the SMNH so it was not possible to do a full necropsy of them.	At least 4 individuals had drowned, one emancipated newborn calf was shot, and the rest were found dead with unknown cause of death. Several of them have probably drowned but were in such a state (rotten) that it was not possible to say. One porpoise was probably killed by a boat.
UNITED KINGDOM	
Harbour porpoise (<i>Phocoena phocoena</i> , n=50)	Bottlenose Dolphin Attack (n=9) Starvation (neonate) (n=9) Starvation (n=9) Bycatch (n=6) Live Stranding (n=3) Dystocia and/or Stillborn (n=3) Pneumonia, Parasitic and Bacterial (n=3) Pneumonia, Parasitic (n=2) Physical Trauma (n=1) Generalised Bacterial Infection (n=1) (Meningo)encephalitis (n=1) Gastritis and/or Enteritis (n=1) Others (n=1) Not Established (n=1)
Short-beaked common dolphin (<i>Delphinus delphis</i> , n=15)	Bycatch (n=9) Physical Trauma, Boat/ship strike (n=1) (Meningo)encephalitis (n=1) Starvation (neonate) (n=1) Dystocia and/or Stillborn (n=1) Others (n=1) Not Established (n=1)
Striped dolphin (<i>Stenella coeruleoalba</i> , n=7)	Live Stranding (n=3) Starvation (n=2) Generalised Bacterial Infection (n=1) (Meningo)encephalitis (n=1)

White beaked dolphin (<i>Lagenorhynchus albirostris</i> , n=6)	Live Stranding (n=5) Not Established (n=1)
Northern bottlenose whale (<i>Hyperoodon ampullatus</i> , n=5)	Live Stranding (n=3) Others (n=1) Starvation (n=1)
Bottlenose dolphin (<i>Tursiops truncatus</i> , n=2)	Bycatch (n=1) Not Established (n=1)
Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i> , n=2)	Live Stranding (n=2)
Minke whale (<i>Balaenoptera acutorostrata</i> , n=2)	Physical Trauma, Boat/ship strike (n=1) Not Established (n=1)

5.2 Other relevant information on post-mortem / strandings schemes

BELGIUM

None

DENMARK

None

FINLAND

None

FRANCE

None

GERMANY

None

LITHUANIA

None

NETHERLANDS

478 harbour porpoises stranded on Dutch beaches in 2009. Post-mortem examinations of 92 animals were done at the Department of Pathobiology, Faculty of Veterinary Medicine, Utrecht University.

Within the pilot study of the Dolphin Saver, all fishermen have a permit from the government to land by-caught harbour porpoises. If by-catch occurs the animals are brought to the department of pathobiology at the University of Utrecht for further examination

In 2009, the North Sea Foundation started setting up a rapid alert system (RAS) for stranding events of porpoises. A plan of action was developed to increase information gathering on stranding events of dead harbour porpoises. In the event of a stranding event, Dutch police, researchers, pathologists, Ministry of Agriculture, Nature and Food Quality, and nature protection organisations, will work together to find the cause of the stranding

<p>event. In 2010 the RAS will be established and evaluated after each stranding event.</p> <p>Kastelein et al. (2009) observed a Congenital Diaphragmatic Hernia (CDH) in a stranded juvenile male striped dolphin. The 2- to 3-y-old animal had survived with its stomachs and intestines in the thoracic cavity, which had caused a large size difference between its two lungs. The animal also had a relatively small penis. The animal's combination of anomalies was either due to a genetic syndrome or caused by maternal exposure to toxic agents.</p> <p>Reference: Kastelein, R.A., van Dooren, M.F., Tibboel, D. (2009) A case study of congenital diaphragmatic hernia in a juvenile striped dolphin (<i>Stenella coeruleoalba</i>). <i>Aquatic Mammals</i> 35(1), 32-35.</p>
POLAND
None
SWEDEN
One female, probably drowned, was very old. She had at least 10 scars in ovaries from previous pregnancies. Also, one female was pregnant
UNITED KINGDOM
CSIP Annual Report to Defra for the period 1st January-31st December 2008 http://randd.defra.gov.uk/Document.aspx?Document=WC0601_8030_ANN.pdf

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

BELGIUM
New Flemish legislation on the protection of species (15 May 2009): <i>Besluit van de Vlaamse Regering met betrekking tot soortenbescherming en soortenbeheer</i> . Belgian Official Journal of 13 August 2009. This legislation came into force on 1 September 2009. No concrete measures are taken, but the legal protection of porpoises.
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
A new Federal Nature Protection Law ("BNatSchG"=Bundesnaturschutzgesetz) was decided 29.7.2009, which contains a new chapter on "marine nature protection" (chapter 6). This legislation will become valid from 1.3.2010 onwards.

LITHUANIA
In 2009 started national new project "Preparation of Protection Actions Plans for Rare Species and Populations Regulations Actions Plans for Invasive Species" in which is including the species harbour porpoise. There is preparing a plan for this species focusing to ASCOBANS implementation. The Institute of Ecology is working on this.
NETHERLANDS
Minor changes in EU regulation 812/2004 are planned. Main new item is the requirement to report in a standard format.
POLAND
<p>No new regulations referring to the protection of cetaceans have been enacted in national law.</p> <p>However, it should be noted that under the supervision of the Minister of the Environment the ratification procedure for the „International Convention for the Regulation of Whaling” was completed in 2009. On 13th March, the President of the Republic of Poland, Lech Kaczyński, signed the appropriate ratification document. After becoming a formal member of the International Whaling Commission on 17th April.</p>
SWEDEN
<p>In 2009, 3 MPA :s were established along the west coast of Sweden applying restrictions regarding fisheries. On of these, in the south of Kattegatt, is a large area 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. In 2010 another 3 MPA:s with fishery restrictions will be established in the Baltic Sea.</p> <p>In 2009 Sweden's first marine national park was established in the Koster Archipelago in Skagerakk. Certain regulations will apply in the use of leisure boats as well as fisheries</p>
UNITED KINGDOM
<p>The Habitats Directive requires Member States to take the necessary measures to establish a system of strict protection for all cetaceans that includes the issue of disturbance. JNCC in collaboration with the other Countryside Agencies developed guidance for those carrying out activities in the marine environment, to help determine the likelihood of committing an offence, how this can be avoided, and, as a last resort, whether the activity could go ahead under licence. With respect to the consequence of certain developments, if the activities involved are not likely to be detrimental to the Favourable Conservation Status of a population but a cetacean species could still be harmed (injured or significantly disturbed), then the applicant should apply for a licence from the relevant regulator to undertake these activities should mitigation or alternative solutions not be viable.</p>

E. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

BELGIUM
<p>A necropsy workshop was organized (<i>3rd Cetacean Necropsy Workshop: special issue on cetaceans inner ear, including beaked whales</i>, Jauniaux T., André M., Dabin W., Morell M., Coignoul F.) on June 17-18 at the University of Liege (Department of Veterinary Pathology). There were 18 participants from countries in Europe and Africa, and 26 marine mammals were necropsied, mostly porpoises. The main issue was the dissection of the inner ear and a demonstration of the skull morphology of cetaceans, including beaked whales.</p> <p>On 14 October 2009 a temporary exhibit on whales and dolphins was opened to the public at the Museum for Natural Sciences (RBINS), Brussels. In this temporary exhibit attention is paid to relevant threats and nature conservation aspects, including on international agreements and conventions such as Ascobans and IWC. The exhibit will close on 29 August 2010. More information on www.naturalsciences.be.</p> <p>For a few days at the start of the holiday season on 1 July 2009, the Belgian art group Captain Boomer reconstructed the magic of a sperm whale stranding on the beach of Ostend. The realistic 18m sperm whale had been constructed out of wood, aluminium and polyester by artist Zephyr (Dirk Claessen). The public was informed about the steps that were taken for scientific research after such a stranding, and about threats and conservation of cetaceans.</p> <p>Two initiatives towards the public to record, report and distribute marine mammal sightings continue:</p> <p>www.waarnemingen.be: an initiative of <i>Natuurpunt Studie vzw</i> and <i>Stichting Natuurinformatie</i></p> <p>www.zeezoogdieren.org: an initiative originating from <i>Natuurpunt Antwerpen-Noord vzw</i></p> <p>Besides that, MUMM reports strandings and selected sighting records online on www.mumm.ac.be.</p>
DENMARK
<p>Fjord&Bælt houses 4 harbour porpoises in captivity for public outreach and research activities. More information available at www.fjord-baelt.dk The web page www.hvaler.dk makes daily updates on cetacean and seal observations by the public in Danish and adjacent waters. The National Environmental Research Council http://www.dmu.dk/Dyr_planter/Dyr/Havpattedyr/Marsvin/ and the National Forest and Nature Agency http://www.skovognatur.dk/DyrOgPlanter/Artsleksikon/Pattedyr/Hvaler/Marsvin/Marsvin.htm have updated information on harbour porpoise abundance, protected areas, and research activities.</p>
FINLAND
<p>Finland has continued the harbour porpoise sighting campaign and received information of five sightings of totally 5 animals in year 2009. The Ministry of the Environment and 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. SAMBAH project (see 4.1) will start wide dissemination actions for public and stakeholders about harbour porpoise starting Jan 1 2010</p>

FRANCE
<p>Public conferences (Oceanopolis-Brest and CRMM/ULR)</p> <p>National stranding network: training for volunteers and national meeting (CRMM/ULR)</p> <p>Observer training in the frame of fishing observation scheme, council regulation 812/04 (CRMM/ULR)</p> <p>Annual Symposium of French stranding network, annual stranding report, research with biological samples from stranding, network scheme animation.</p> <p>Regional stranding network: training for volunteers and annual meeting (LEMM/Océanopolis)</p> <p>Movie on cetaceans and ferries survey produced by Brittany Ferries and Oceanopolis broadcasted onboard the ferries+ conference on board</p> <p>Information concerning the “Year of the Dolphin” on the Oceanopolis website.</p> <p>New exhibition on cetaceans: National Museum Paris, partnership Oceanopolis. An itinerant version circulate in Europe</p>
GERMANY
<p>In the light of spreading information about the occurrence and biology of harbour porpoises some minor projects can be mentioned:</p> <p>In 2009 for the first time the effort of a ‘whale watching tour by foot’ was offered by the National Park Information Centre in Wilhelmshaven. Even if this is more to be seen as an additional event with unpredictable results, harbour porpoises were frequently observed in the last years passing the shoreline near Wilhelmshaven during spring and an informational plate about the local situation was designed and will be put up in spring 2010.</p> <p>At the National Park Information Centre on Norderney the project ‘Meereslauschen’ has ended. A hydrophone collects underwater sounds (also sounds from harbour porpoises), the results were transmitted into the information centre. [Czeck, National Park Administration Wadden Sea of Lower Saxony]</p> <p>GRD’s sightings project of harbour porpoises in the Weser river was successfully continued in 2009. We received a number of sightings published under www.weserwale.de. For 2010 we plan the deployment of 2 C-PODs to receive additional information on this riverine occurrence of porpoises. [Koschinski, Society for Dolphin Conservation Germany]</p> <p>Several press releases by three NGOs (GSM, GRD and NABU) together on underwater detonations, boat/ship noise and pile-driving noise were published in the course of the year and interviews were given to media upon request.</p> <p>A diving association's speed boat contest (“4 Elements Challenge”) was opposed. For this reason press releases were prepared as well as an on-line petition to the German parliament. As a result of strong media interest, authorities felt obliged to limit the speed of the rigid-hull inflatable boats to 16 knots inside SACs and in the inner Kiel Fjord and Eckernförde Bight and to 24 knots in the outer Kiel Bight (from 35 knots originally intended). [Koschinski]</p> <p>Several press releases were published in the course of the year and interviews were given to media upon request. The sightings project (since 2002) is well-respected and known to a wide public, especially along the coast of the Baltic Sea region. It increasingly provides interesting information, such as reports on the appearance of a white harbour porpoise in the Western Baltic in the winter of 2008/9 (photos available).</p> <p>The sightings data are posted on-line, and BfN is regularly publishing the map with the data put together by GSM staff. The sightings map is interactive, i.e. all information can be</p>

accessed by a simple click. Lectures were held to school classes and other interested groups, and information was distributed during the international fair "Hanseboot".

On the occasion of the IDHP 2009, GSM organised a meeting with members, media and other interested people in "Hohe Düne" (Marina of Warnemuende) with several interesting lectures about harbour porpoises and harbour seals. This event was, of course, accompanied by a press release. [Deimer]

LITHUANIA

The lectures for schoolchildren and students on protection of marine ecosystems including small cetaceans as well as local harbor porpoises are permanently organized in the Lithuanian Sea Museum display.

Lithuanian Sea Museum celebrated International Harbor Porpoise Day in 2009 too.

A life-size model of harbour porpoise have been exhibited at the aquarium hall of the Lithuanian Sea Museum.

NETHERLANDS

The Rugvin Foundation communicates its research findings through press releases, articles and media interviews. Next to that, at the September 2009 Oosterschelde survey it collaborated with WWF's LifeGuard project:

<http://lifeguard.wnf.nl/index.cfm?act=missie2.vervolg&varpag=14> LifeGuard is aimed for young people aged 12 to 18 years. The core of the campaign consists of missions where young people can participate in (in this case the Harbour Porpoise Survey).

A new website has been launched in 2009 by SOS Dolfijn: <http://www.sosdolfijn.nl/>. It provides an overview on rehabilitation of small cetaceans (in Dutch).

An article on underwater noise and underwater life has been published in : "Kust en Zeegids" this is a publication from the Netherlands section of the Coastal & Marine Union (EUCC) p. 32-33, 2009. Min. AN&FQ. In this article tourists and visitors of the Netherlands and Belgian coast are made aware of the impact of increasing underwater noise on sea mammals and fish.

POLAND

In 2009, the efforts to increase the public awareness about the harbour porpoises as a species which requires special protection In the Baltic Sea was continued.

Funds for the activities carried out in 2009 came mainly from the budget of the Hel Marine Station of the University of Gdańsk and the Foundation for the Development of the University of Gdańsk, the National Fund for Environmental Protection and Water Management, the Regional Fund for Environmental Protection and Water Management in Gdańsk, the EU's Infrastructure and Environment Operational Programme, the Polish Post Office and the LOTOS Group.

The greatest coverage was achieved by the Polish Post Office's campaign issuing a series



of stamps titled „Mammals of the Baltic” which presented image of three protected species of seal as well as that of the harbour porpoise. The print run for each stamp was 540 000. Special envelopes and postcards were also issued.



The first day of issue (31.07.2009) was marked by a ceremony which took place at the sealarium of Hel Marine Station IOUG.

The second most important event was the publication of a film DVD entitled „Baltic Harbour Porpoises”, which was created by IOUG Hel Marine Station group. It was distributed to all coastal environmental and marine environment protection institutions, fisheries and pro-ecology organizations, schools, and biology teacher training courses. The donors for the first edition were the National Fund for Environmental Protection and Water Management and the University of Gdańsk, and further editions were funded by the Regional fund for Environmental Protection and Water Management in Gdańsk, the LOTOS Group and the Marine station together with the foundation for the Development of the university of Gdańsk.

This film (from the ASCOBANS International Day of the Baltic Harbour Porpoise) was screened daily at the IOUG Hal Marine Station and during the summer season also at the outdoor cinema which enjoyed great success at the “Planet Ocean” photographic exhibition which the authors (from the “European Earth Centre” Foundation) enriched with educational information covering the rare and endangered species an the Baltic Sea.



Engaging public awareness about the necessity of supporting the protection of the Baltic harbour porpoises was also aided by articles in the local and national Polish press, information in radio and television programs, and the news service on the website- www.morsiwn.pl.the. The cycle of monthly full-page articles in the coastal “Dziennik Bałtycki” newspaper were particularly valuable because they reached readers in the fishing community. The printing of this cycle was financed by the LOTOS GROUP.



The complement this, there was a course for biology teachers from schools at various levels in the province of Pomerania. The syllabus focused on broadening knowledge of the biodiversity of the Baltic Sea with prominence given to the endangered resources of Baltic harbour porpoises and methods of protecting them. The course was intended to assist the introduction of the topic to biology syllabi in primary, middle, and secondary schools.



In the centre for marine nature education, run on the Polish coast by the Hel Marine Station the shop is now stocking new souvenirs with images of the porpoises.

As the same time, thanks to the efforts of both this institution and the Foundation of the Development of the University of Gdańsk, a special tinned fish product – “Porpoise’s Delight”- labeled as a foodstuff produced using fishing techniques which are safe for the Baltic porpoises – was brought onto the market. This is probably the first “Harbour porpoise friendly product”



on the commercial market (most likely not only in Poland). Sales of the product were strengthened by a special outdoor advertising campaign.



A large outdoor campaign with an image of the porpoise was also conducted in conjunction with project- „Billboard in Nature” and „Nature on the Waves” – run by the local „Friends of Hel” association, the IOUG Marine Station and the Foundation for the Development of the University of Gdańsk. Both campaigns served to emphasise environmental protection In the Nature 2000 area – the Puck Bay and the Hel Peninsula, which is dedicated to protection on

the porpoise, among other things. The billboards were located on main streets, and posters and leaflets on ferries sailing on the Gulf of Gdańsk and the Puck Bay. The main funds for this activity were provided by Regional Fund for Environmental Protection and Water Management in Gdańsk.

ZATOKA PUCKA I PÓŁWYSEP HELSKI
OBSZAR CHRONIONEJ PRZYRODY UNII EUROPEJSKIEJ

**ZAPRASZAMY ZIMĄ, WIOSNĄ I ... JESIENIĄ,
 BEZ TŁOKU, BEZ DROGOWYCH KORKÓW, BEZ SINIC NA PLAŻY
 ODPOCZNIESZ RAZEM Z PRZYRODĄ**

Przyjaciele Helu oraz Wojewódzki Fundusz Ochrony Środowiska i Gospodarki Wodnej w Gdańsku



ZATOKA PUCKA I PÓŁWYSEP HELSKI
 TWÓJ I MÓJ OBSZAR CHRONIONEJ PRZYRODY

Zatoka Pucka i Półwysep Helski...

THE PUCK BAY & THE HEL PENINSULA YOUR PROTECTED HABITAT AND MINE
Zatoka Pucka i Półwysep Helski
 TWÓJ I MÓJ OBSZAR CHRONIONEJ PRZYRODY

www.morswin.pl

GDYNIA
 PRZYJEDŹ W DOBRYM CZASIE.
 ODPOCZNIESZ RAZEM Z PRZYRODĄ.
 ZAPRASZAMY ZIMĄ, WIOSNĄ I... JESIENIĄ!
 COME AT THE RIGHT TIME AND REST WITH NATURE.
 WE WELCOME YOU IN WINTER, SPRING... AND AUTUMN!

As part of the promotional campaign for ASCOBANS and efforts to protect the porpoise two annual outdoor events were organized. The first was an information and educational stand and exhibition organised at the porpoise monument in Gdynia on 17th May during the International Day of the Baltic Harbour Porpoise. The event's message was mainly directed towards the promotion of the protective activities of the ASCOBANS agreement and international cooperation on saving these animals in the Baltic. In the evening, in the

conference hall of Institute of Oceanography of the University of Gdańsk in Gdynia, there was a public presentation of films about the methods used to save the small cetaceans.



In the same place but two weeks later as part of the Baltic Festival of Science a second, similar stand was organised. This time, as well as promoting protection of the Baltic harbour porpoise, the audience was told about the research methods used for these animals by Polish scientists.



As a part of the information camping aimed at the fisheries sector, on the 16th – 18th June 2009 the Hel Marine Station IOUG organised a special exhibition at the POLFISH 2009 international Fair of Fish Processing and Fish Products



The outdoor stand organised on 25th July on the Hel Peninsula In the Hel Marine Station as part of the annual “Day of Fish” event was similar in both character and message.



Different message was presented by a stand promoting Hel Marine Station's project on active protection of the porpoises in the Bay of Puck, which was organized between 24th and 27th November 2009 in the heart of the country, in Poznań, at the POEKO International Trade Fair for Environmental Protection. Here, the information was mainly directed to representatives of the environmental protection sector and showed the need to protect the marine environment as part of international obligations – the Bonn Convention (ASCOBANS Agreement) and the Helsinki Convention (HELCOM Recommendation 17/2). The audience for the content and materials presented also included people from outside the sector visiting the fair, in particular teenagers from Poznań schools.



As a conclusion to the Year of the Baltic Sea in Pomerania Province, on 16th December at the City museum in Gdynia the 5th International Biennial of Painting and Unique Fabrics – EKO BALT Gdynia 2009 – was opened. The Biennial is patroned by the Mayor of Gdynia and its honorary patrons are the Minister of Culture and National Heritage, the Marshal of Pomerania Province, and the Mayors of Gdańsk and Sopot. One of the exhibits dealt with the endangered Baltic harbour porpoises and the necessity to protect them.



In 2009, the Hel Marine Station organised further informational meetings with fishermen. This time, discussions were held with owners of traditional small boats using anchored gillnets in the Puck Bay. Discussions covered the need to co-operate and respect the equipment and sea areas used for research and fishing, methods of marking fishing equipment, and the need for mutual information exchange, among other topics.



In 2009, there was also an educational and information campaign started up on the protection of porpoises conducted as part of the joint WWF-Poland and Hel. Marine Station “Support Restoration of Baltic Mammals in Poland” project.



A Project website was set up [www.ssakibaltyckie.pl] and a pocket guide on Baltic mammals was published [www.ssakibaltyckie.wwf.pl/poradnik.pdf]

The information website dedicated to issues concerning the conservation of the Baltic harbour porpoise - www.morswin.pl.

SWEDEN

The day of the harbour porpoise is celebrated every year through exhibitions and presentations at Havets Hus in Lysekil.

A new brochure was produced by SEPA in the autumn 2009. The aim of this production is to raise awareness of the general public as well as encouraging people to report sightings and stranded or bycaught harbour porpoises to the Swedish Museum of Natural History in Stockholm (SMNH). The brochure will be distributed to ferry-companies, birdwatchers, boat-clubs etc. in the spring.

Since a group of porpoises were spotted in the archipelago of Stockholm a press release from SMNH received a lot of attention. Porpoises in the central Baltic are spotted every year but this was a group of several individuals, and that is unusual.

UNITED KINGDOM

Defra hosted ‘Marine Month’ in March 2010 to raise awareness across the whole department of issues relating to the marine environment. As part of this, ASCOBANS provided an exhibition to highlight the work, aims and objectives of the Agreement.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

BELGIUM
None
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
None
NETHERLANDS
None
POLAND
<p>One of the recommendations of the Agreement is to gather reliable knowledge on a scale of threats to small cetaceans. This can be obtained by means engaging both small and large financial resources (e.g. a programme for bycatch observers, specialized hydroacoustic research, etc). It seems that the simplest and least expensive activities include bycatch reporting by fishermen and transport of dead animals to research centres. The number of reports on bycatch has dropped rapidly during last 5-7 years. After discussions with fishermen it became clear that the observed drop of reporting activity has been a result of the EU Regulation no. 812/2004 which came into force.</p> <p>Another issue is the co-operation of sea users in research on distribution of porpoises by using passive hydroacoustic detectors (e.g. POD). There is a growing conflict over the use of sea space which is causing a great deal of difficulty in maintaining underwater research locations untouched.</p> <p>In this situation, in 2009 the Ministry of Environment undertook a range of initiatives on strengthening contacts with the Department of Fisheries in the Ministry of Agriculture and Rural Development in order to prevent failure of planned conservation activities on critically endangered (according to IUCN 2008) resources of the Baltic harbour porpoise.</p>
SWEDEN
None
UNITED KINGDOM
None

Fifteenth Compilation of Annual National Reports to ASCOBANS

2010



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	1 Jan - 31 Dec 2010	31/03/11	Jan Haelters Royal Belgian Institute of Natural Sciences (RBINS) Department MUMM 3e en 23ste Linierregimentsplein B-8400 Ostend Belgium Tel: +32(0)59.70.01.31 Fax: +32(0)59.70.49.35 Email: j.haelters@mumm.ac.be	Scientific assistant
DENMARK	1 Jan - 31 Dec 2010	30/03/11	Magnus Wahlberg Fjord&Bælt Margrethes Plads 1 5300 Kerteminde Telephone / Fax: +4542131548 Email: magnus@fjord-baelt.dk	Chief scientist
FINLAND	1 Jan - 31 Dec 2010	22/03/11	Penina Blankett Ministry of the Environment PO Box 35 FI-00023 GOVERNMENT Telephone / Fax: + 358 504638196 / + 358 9 1603 9318 Email: penina.blankett@ymparisto.fi	Senior Advisor
FRANCE	1 Jan - 31 Dec 2010	April 2011	Hassani Sami LEMM Oceanopolis Port de Plaisance du Moulin Blanc 29200 Brest France Telephone / Fax: + 33 298 344 052 / + 33 298 344 069 Email: sami.hassani@oceanopolis.com	Delegate
GERMANY	1 Jan – 31 Dec 2010	11/02/11	Oliver Schall Federal Ministry for the Environment, Nature Protection and Nuclear Safety (BMU) Division N I 3 “Species Protection” Robert-Schuman-Platz 3, D-53175 Bonn Germany Telephone / Fax: +49-22899 3052632 /-3052684 Email: oliver.schall@bmu.bund.de	ASCOBANS Focal Point of Germany

Compilation of Annual National Reports to ASCOBANS 2010

LITHUANIA	1 Jan – 31 Dec 2010	24/03/11	Miglė Simanavičienė Biodiversity Division, Chief Desk Officer Ministry of the Environment of the Republic of Lithuania A. Jakšto g. 4/9 LT-01105 Vilnius Lithuania Telephone / Fax: +370 5 2663661 / Fax: +370 5 2663663 Email: m.simanaviciene@am.lt	Biodiversity Division, Chief Desk Officer
NETHERLANDS	1 Jan – 31 Dec 2010 (unless stated differently)	15/04/11	Meike Scheidat & Steve Geelhoed IMARES P.O. Box 167 1790 AD Den Burg The Netherlands Telephone / Fax: +31 317 487 108 Email: meike.scheidat@wur.nl	Researcher
POLAND	1 Jan – 31 Dec 2010	13/04/11	Monika Lesz Department of Nature Conservation Ministry of Environment 00-922 Warszawa Wawelska 52/54 Telephone: 48 22 57 92 667 Fax: +48 22 57 730 Email: monika.lesz@mos.gov.pl	National Focal Point for ASCOBANS
SWEDEN	1 Jan – 31 Dec 2010	19/04/11	Christina Rappe SEPA Valhallavägen 195, 106 48 Stockholm Telephone / Fax: +46-8-6981085 / +46-8-6981042 Email: christina.rappe@naturvardsverket.se	National Coordinator ASCOBANS
UNITED KINGDOM	1 Jan – 31 Dec 2010	31/03/11	James Gray Department of Environment Food and Rural Affairs (Defra) Sea Fisheries and Cetacean Conservation Team, Nobel House, 17 Smith Square, London SW1P 3JR United Kingdom Telephone / Fax: +44 207 238 4392 Email: james.gray@defra.gsi.gov.uk	UK ASCOBANS Coordinator

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BELGIUM
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GERMANY
<p>Mr Oliver SCHALL Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Robert-Schuman-Platz 3 53175 Bonn Germany oliver.schall@bmu.bund.de Tel. +49 228 305 3632</p>

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

LITHUANIA

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UNITED KINGDOM

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 Tel: +44 207 238 4392

List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details

BELGIUM

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University of Liège, Dept. of Veterinary Pathology, Sart Tilman 43, B-4000 Liège, Belgium, Contact: Thierry Jauniaux, Email: T.Jauniaux@ulg.ac.be

Research Institute for Nature and Forest, Kliniekstraat 25, B-1070 Brussels, Belgium, Contact: Eric.Stienen@inbo.be

DENMARK

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Department of Zoophysiology, Aarhus University, C. F. Møllers Alle 131, 8000 Aarhus C, Denmark

Marine Research Station, University of Southern Denmark, Hindsholmsvej 11, 5300 Kerteminde

Fjord&Bælt, Margrethes Plads 1, 5300 Kerteminde, Denmark

DTU-AQUA, Jægersborg Alle 1, 2920 Charlottenlund, Denmark

Fisheries and Maritime Museum, Tarpbagevej 2, 6710 Esbjerg V, Denmark

FINLAND

Ministry of the Environment, Senior Adviser Penina Blankett, PO Box 35, FI-00023 GOVERNMENT, FINLAND

Ministry of Agriculture and Forestry, Senior Officer Heikki Lehtinen, PO Box 30, FI-00023 GOVERNMENT, FINLAND

Tampereen Särkänniemi Ltd., Dolphinarium, Head Trainer Kai Mattsson, 33230 Tampere, FINLAND

SAMBAH partners: Turku University of Applied Sciences, Project Manager Olli Loisa, Sepänkatu 1, 20700 Turku, Finland

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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
The project 'WAKO II', started in 2009, continued in 2010. The study includes the participation of independent observers on board static gear fishing vessels, and a voluntary logbook-keeping by static gear fishermen. Fishermen are requested to record bycatches of marine mammals and seabirds, and if possible to bring bycaught (and dead) animals to port. The project is funded by the Belgian Science Policy (http://www.belspo.be/ssd). Contact person: Jochen Depestele: Jochen.Depestele@ilvo.vlaanderen.be ; website: www.ilvo.vlaanderen.be/wako .
DENMARK
From May 2010-April 2011 the bycatch of 6 Danish gillnet vessels (<15m) is monitored by use of CCTV cameras. Data on bycatch from these trials will be available after April 2011.
FINLAND
During the observation scheme 2006-2007 no bycatches were detected or porpoises sighted by the observers.
FRANCE
A programme called INPECMAM has been funded and agreed between the fishermen, the Iroise sea MPA, the University of Brest, the National Natural History Museum and

Oceanopolis to work on the by-catch and the depredation in the Iroise sea. At this state, the sampling protocol is finalized and the work will start this spring.

The fishing Industry has carried out an observer program (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 (decision of the National Committee of the Fisheries (CNPMM: French industry) and the National Head of the Fisheries (French administration)).

A standardization of a protocol used for all the observation programs (FilManCet, Obsmer..) has been done by the IFREMER and the CRMM/ULR in 2009. All those observation programmes planned by the Fishing Industry, the ministry of Fisheries and Ifremer were implemented during 2009 and 2010.

In the framework of FilManCet, a total of 610 days were observed in areas VIIc and VIId&IVc involving 75 boats. A total of 5 bycatch were reported (3 harbour porpoises, 1 grey seal and a pilot whale).

An analysis of all the data available from 2007 to 2010 concerning the areas VII was also achieved and the bycatch rates were different between ICES divisions. In Western Channel the bycatch of seals which can be greater than porpoise raise the question of the interest of pingers to deter porpoises.

A pinger experiment was attempted in area VIId but it was not conclusive as no bycatch was observed on the standard nets.

A meeting was organised in March with the fishing industry to discuss of the results of studies and to discuss mitigation.

The CRMM/ULR noted during the program FilManCet and on its end that the observers sampling plan was not representative of the entire area. Indeed, in few specific subareas of the VIId are not sufficiently observed while the national stranding network reveals porpoise by-catch rates to nearly 30% of the observed stranding in front of these subareas (east of the Cotentin, Seine Bay, Strait of Dover)

GERMANY

Acoustic harassment devices (AHDs) are used to deter harbour porpoises and seals (also from areas of pile-driving). However, so far there is too little information to judge if the deterring effect is sufficient. Therefore, BioConsult SH tested the temporal and spatial effect of the Lofitech sealscarer on harbour porpoises using a combination of visual observations and passive acoustic monitoring with C-PODs. The seal scarer emits pulses at 14 kHz with a source level of about 189dB re 1 μ Pa, and sound measurements at various distances were carried out. Sighting rates of porpoises significantly declined within the whole 1 km observation radius. Recordings of porpoise echolocation signals by C-PODs were significantly reduced out to a distance of 7 km, with the strongest effect at the nearest PODs and a weak effect at greater distances. Minimum observed approach distance during 28 hours of sealscarer activity was 700 m. A response study revealed clear avoidance reactions by porpoises out to the maximum studied distance of 2.6 km. However, in some cases no reaction was found, and occasionally porpoises were also recorded by PODs at close distances. This shows that there may be substantial variation between individuals, different motivational states or different environmental conditions. These results show that the application of sealscarers is useful for reducing the number of harbour porpoises that may suffer hearing damage caused by pile driving. However, a complete exclusion of all animals cannot be achieved. [Diederichs, BioConsult SH]

LITHUANIA

There is no any investigation for reducing of bycatch

NETHERLANDS

In cooperation with the Coastal & Marine Union (EUCC) IMARES a Closed Circuit TV system has been implemented in December on board of one set net fish cutter (targeting cod, turbot and brill). This fisherman participates in the bycatch mitigation project of EUCC. At least two bycatch incidents occurred in the first quarter of 2011.

The EUCC continued its pilot study to investigate the workability and efficiency of a new pinger (Bananapinger Fishtek UK) and a DDD device, as the previously tested Dolphin Saver proved to be not workable. The project, which continues in 2011, aims to mitigate bycatch of Harbour Porpoises (*Phocoena phocoena*) in the winter set net fishery on mainly cod, turbot and brill. The study is a close collaboration between the Dutch Fisheries Organisation (Vissersbond), the expert group on set net fishery (Kenniskring Staand want), ten Dutch winter season set net fishermen and the Coastal & Marine Union. The study is supported by the Dutch Ministry of Economics, Agriculture and Innovation (EL&I) and will continue with funding from the European Fisheries fund in 2011. In order to study the effects of the acoustic deterrents cooperation with IMARES porpoise detectors are installed on the nets. Project coordinator for EUCC: Marije Siemensma, m.siemensma@kustenzee.nl; 0031 (0) 6 16830430.

POLAND

In 2010, in the Puck Bay, the project on "Active Protection of Harbour Porpoises against Bycatch" was continued. In July at the entrance to the Puck Bay at the line connecting Gdynia and Hel harbours, a linear barrier was constructed equipped with 84 acoustic scares to stop the porpoises from entering the area. The acoustic scares were placed at the height of 1,5 m above the sea bottom. The purpose was to stop the porpoises from entering an area where there is a high density of bottom gillnets and an anchored surface gillnet (GNS)

The project is carried out by the Hel Marine Station of the IOUG, financed by the National Fund for Environmental Protection and Water Management and the University of Gdańsk.

Before launching the project the area has been monitored for 2 years for the distribution of fishermen gear and for the harbour porpoise presence.

SWEDEN

Studies investigating alternative fishing gear such as cod pots and traps for species like pike-perch and herring are being carried out by the Swedish Board of Fisheries. During the recent three years the Swedish Board of Fisheries has been studying cod pots as an alternative to the gillnet fisheries for cod in central Baltic and the results are promising. Pots are used in a variety of different fisheries and are known to use less energy in operation than active gears. They are less destructive to the benthic habitat compared with gear and they can be left in the water for long time periods. They also deliver the catch alive, increasing its commercial value. Pots are selective and with a certain mesh size only catch fish in a certain size and have no bycatch of marine mammals (when seal grids are used) and birds. But equally importantly, the catch is gathered in a closed department which makes it possible to develop a seal-safe fishing gear. The Swedish Board of Fisheries has studied the fishing efficiency of the "two-chamber" pots in a commercial fishery for a few years. The results show that the pots can potentially be used in a commercial fishery (Ljungberg 2007; Ovegård, 2009) and that the catch in pots are comparable to the catch in gillnet fisheries (Königson et al., 2010.).

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, while the over 12m vessels that are involved in ongoing trials of acoustic mitigation devices are also subject to ongoing collaborative study.

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

Pingers are used in some few gillnet fisheries according to the EU regulation 812.

FINLAND

None

FRANCE

Modification of practices in pelagic trawling (headline at 5 m depth)

GERMANY

None

LITHUANIA

There are no investigations for reducing of bycatch

NETHERLANDS

None

POLAND

The Regulation 812/2004 obliges Poland to use acoustic deterrent devices (pingers) on

fishing vessels of the length 12 m or more operating in the ICES 24 area. In order to fulfill Poland's commitments concerning the above Regulation 500 pingers were purchased in 2009 by the Fisheries Department of the Ministry of Agriculture and Rural Development and distributed among fishermen. Over half 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), other were distributed among fishermen from central and eastern part of the Polish seacoast. The use of pingers in the Pomeranian Bay is controlled by the Marine Fisheries Inspectorates in Szczecin.

By the end of 2009 r. from among 13 fishing vessels of the length 12 m or more harbouring in the Pomeranian Bay, only three had anchored surface gillnets (GNS) and were obliged to use pingers. Over the all the Polish sea harbours in 2010 there were only 9 such vessels. Thus, the Regulation mentioned above can only slightly reduce the porpoise bycatch because only a few percent of fishing vessels is obliged to use pingers. Moreover, it is very hard to assess the effectiveness of pingers due to lack of data on the distribution and migration routes of harbour porpoise.

SWEDEN

Fishermen in the south of Kattegat have been offered pingers for free, successfully using them in the gillnet fisheries for flatfish. 6 fishermen are use pingers since March 2011.

UNITED KINGDOM

Work on mitigation continues to focus on the use of one specific type of acoustic deterrent device (DDD).

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 success. A variant of the same device (DDD03H) is being adopted by the over 12m gill and tangle net fleet in the Western Channel and Celtic Sea. Observations on this fleet segment continue to demonstrate the effectiveness of these devices in minimising porpoise bycatch, but the effects on common dolphins is not yet clear.

We have expanded this work by purchasing further devices, which have been deployed in static net fisheries in the Southwest and the North Sea. We hope the extra information this provides will allow us to make firm conclusions on the devices effectiveness and safety by spring 2011.

Work has also been undertaken on determining how tangle net design influences porpoise and seal bycatch rates, and how such features might be adapted to minimise bycatch rates. Paired sets of nets fished in the same general area were tested and passive acoustic monitoring used to determine how porpoises interact with nets.

The initial acoustic monitoring showed little difference in porpoise activity around three nets rigged in different ways, which does not suggest any obvious way of modifying such nets to make them less attractive or more detectable to porpoises. Additionally, the influence of net design on the probability of a bycatch event occurring is being investigated. The existing data does 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.

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

BELGIUM

In the framework of the WAKO II project (see above), a small number of bycatch cases of marine mammals was reported by fishermen.

DENMARK

There is a very clear increasing trend in stranded porpoises throughout Europe during the past years. The reason for this is presently unknown.

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

Similarly to the previous years, France has deployed in 2009 a large program with observers on board in the application of EC Regulation 812/2004 to monitor the bycatch of cetaceans in fisheries. A total of 731 days at sea were observed during 308 trips for pelagic trawling and 324 days at sea observed during 238 trips for set nets.

Observers for the EC regulation (n° 812/2004) are deployed for vessels greater than 15 meters and through pilot studies for vessels less than 15 m. As it is not possible to put observers on boats less than 8m for security reason, a correction has been used by using a relationship between vessel size and length of nets.

The bycatch species observed were common dolphin in the pelagic trawling in Atlantic sea, striped dolphin and bottlenose dolphins in the Mediterranean sea, harbour porpoises and striped dolphins in set nets of the bay of Biscay. All the coefficients of variation (CV) of bycatch obtained for 2009 were higher than 0.60 and largely higher than the target of the Regulation.

The table below brings the 2009 bycatch estimates available for pelagic trawl fisheries and set nets observed under the Reg 812/2004 (national report delivered in 2010)

Metier	Zone de pêche	Principales espèces cibles	Espèces de cétagés dans les captures	Nombre d'incidents	Nombre d'individus capturés par espèce		Taux de captures accidentelles		Captures totales estimées	CV
					avec pingers	sans pingers	avec pingers	sans pingers		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
GNS>R; VII I; >=15m	VIII	hake	Stenella coeruleoalba	2		3		(0.033)	(800) ???	0.68
GTR&GNS; VIII; <15m	VIII	sole, baudroie	Phocoena phocoena	4		4		(0.0172; 0.0195)	(600-800) 300	0.64
PTM; hiver; tous navires	VII	bar	Delphinus delphis	4		6		0.0458	20	0.62
PTM; hiver; tous navires	VIII	bar	Delphinus delphis	6		21		0.4773	(400) 300-	0.89

PTM; été; tous navires	VII	bar	Delphinus delphis	1		2		0.0253	400 20	0.9 7
PTM; été; tous navires	VIII	thons	Delphinus delphis	10		115		0.4934	900	0.6 6
OTM ; été; <15m	VIII	divers	Delphinus delphis	1		1		0.0294	13	0.8 0
OTM ; année; tous navires	medit	merlu, anchois, (sardine)	Stenella coeruleoalba	4		5		0.0072	70	0.5 3
OTM ; année; tous navires	medit	anchois	Tursiops truncatus	1		1		0.0014	10	0.9 7

In this table, an extrapolation was made with 2008 fishing effort data, In a second step, another extrapolation was made with 2009 fishing effort data (number of trips) for pelagic fleets. The 2009 effort was lower than the effort of 2008 specifically for the tuna fishery. The global amount of common dolphin bycatch was found around one thousand animals.

In the pelagic trawling the bycatch rate is higher than in the previous years suggesting that several years are required to get an estimate of the average bycatch. Most of the bycatch of common dolphin were observed in the ICES area VIII in the winter sea bass fishery and also in the summer tuna fishery. In this fishery, the main dolphin bycatch occurred in august when the tuna were difficult to find. A great part (94 %) of the bycatch in the tuna fishery was observed in two pairs and in two trips. Difficulties to find tuna may have increased some risk of by-catch

As a conclusion, for the fleets concerned for assessment by the regulation, the estimates of by-catch for 2009 are around 1000 common dolphins in ICES area VII-VIII, 300 porpoises in the area VIII, a quantity not well estimated of striped dolphins in area VIII, 70 striped dolphins and 10 bottlenose dolphins in the Mediterranean sea.

A study named FilManCet started at the end of 2008 to assess the bycatch rate in set nets in two parts of the Channel coasts. The final report of this study should occur in 2011.

The national stranding network examined 390 stranded carcasses of cetaceans with a rate of by-catch evidence considered by nearly 29% (112 individuals were diagnosed with incidental capture by the standards of Kuiken and Hartmann, 1992).

The specific distribution of these by-catches: Among small cetaceans: 55 common dolphins, 31 porpoises, 9 striped dolphin, 5 bottlenose dolphin, a white-sided dolphins, a Risso's dolphin and 4 dolphins undetermined due to major damage during release from net. Among large whale, a juvenile fin whale was found dead in an abandoned fishing gear. Finally, in pinnipeds group, 4 harbor seal and a grey seal.

GERMANY

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

LITHUANIA

None

NETHERLANDS

Bram Couperus is nominated chair of ICES expert group Working Group on the Bycatch of

Endangered Species (WGBYC) in 2012.
POLAND
In 2010 in the framework of the "Long-term Programme for Collecting Fisheries Data" conducted by the Sea Fisheries Institute in Gdynia, neither incidental bycatch was recorded nor harbour porpoises were observed (similarly as in the previous years). Neither such cases were reported also by the Polish fishermen. Only the stranding dead individuals 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 Swedish Board of Fisheries bought altogether 9 camera systems to place on fishing boats. Four of them were to be placed on trawlers and five on smaller fishing boats fishing with gillnets. The purpose of this was to investigate discard as well as marine mammal and bird bycatch. 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.
UNITED KINGDOM
None

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 AC18/Doc.2-01.
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
None
NETHERLANDS
Report EU regulation 812/2004: Couperus, A.S. 2010. Annual Report of the Netherlands to the European Commission on the implementation of Council Regulation 812/2004 on cetacean bycatch. CVO Report 10.006

POLAND
<p>Due to the lack of possibilities to obtain financial support for carrying on the Project on "Monitoring Incidental Catch of Cetaceans Scheme" in 2010, the Sea Fisheries Institute in Gdynia conducted the recordings under the "Long-term Programme for Collecting Fisheries Data". The observations were conducted on Polish vessels of the length of 15 m or more, fishing in the areas ICES: III a, b c i III d and using the OTM or GNS nets operating east of 24 subarea ICES. Observations were conducted by the trained Sea Fisheries Institute employees.</p> <p>Altogether, according to the Regulation 812/2004 criteria, observations were conducted during 73 days, including 57 days when OTM nets were used and 16 days when GNS net were used.</p> <p>On no one out of the 73 monitored fishing days neither porpoise nor any other marine mammal was recorded in the nets.</p> <p>Moreover, within the framework of the research Project ZOSTERA co financed by the funds of the Priority Axis V Infrastructure and Environment as well as by the National Fund for Environmental Protection and Water Management, the Sea Fisheries Institute employees conducted observations from fishermen vessels cruising in the Puck Bay on additional 20 days of fishing. The above vessels operated anchored gillnets (GNS) of various mesh sizes.</p> <p>On no occasion the presence of marine mammal has been recorded.</p> <p>The Polish reports covering the implementation of the "Monitoring Incidental Catch of Cetaceans Scheme" are published at the website of the Ministry of Agriculture and Rural Development at the folder:</p> <p>BIP/informacjebranzowe/rybolowstwo/rybolowstwomorskie(http://www.bip.minrol.gov.pl/DesktopDefault.aspx?TabOrgId=1703&LangId=0).</p> <p>The report for 2010 will be submitted to EC and, subsequently, it will be published at the website of the Sea Fisheries Institute, in compliance with the term determined by the Regulation.</p>
SWEDEN
None
UNITED KINGDOM
None

2 REDUCTION OF DISTURBANCE

2.1 Anthropogenic Noise

BELGIUM
<p>In the framework of the construction and operation of offshore windfarms in Belgian waters, impact studies were performed, amongst others to try to assess the impact on marine mammals. Preliminary studies, describing densities of porpoises as estimated through aerial line transect surveys, first trials with PoDs, and an assessment of underwater noise during piling, are published in:</p> <p>Degraer, S., Brabant, R. & Rumes, B. (Eds), 2010. 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> <p>Chapter 4: Norro, A., Haelters, J. Rumes, B. & Degraer, S., 2010. Underwater noise produced by the piling activities during the construction of the Belwind offshore wind farm (Bligh Bank, Belgian marine waters); p. 37-51.</p> <p>Chapter 10: Haelters, J., Kerckhof, F., Jacques, T.G. & Degraer, S., 2010. Spatio-temporal patterns of the harbour porpoise <i>Phocoena phocoena</i> in the Belgian part of the North Sea; p. 153-163.</p> <p>Between 2009 and the beginning of 2010 in total 56 monopiles were put in position at the Blighbank windfarm site, most of these in the second half of 2009.</p> <p>In February 2010 the Minister responsible for energy has changed the domain permit for the installation of windmills in Belgian waters for the group C-Power. Their new permit foresees a park of 216-318 megawatt and piling of monopiles instead of gravity based foundations. Piling will start in April 2011.</p>
DENMARK
None
FINLAND
None
FRANCE
<p>The pinger (CETASAVER) directional pinger which was experimented on fishing trawls is now commercialized by Sodden. There is no regulation to enforce the use of the device.</p> <p>Please reference and briefly summarise any studies undertaken</p> <p>The pinger (CETASAVER) directional pinger which was experimented on fishing trawls is now commercialized by Sodden. There is no regulation to enforce the use of the device.</p> <p>An update of the IFREMER bibliography synthesis (presently stopped at 2009) about acoustic risks for MMs is planned for mid-2011.</p> <p>A new acoustic deterrent device prototype using wideband signals at moderate levels with random frequency content and devoted to seismic surveys has been developed by Ifremer and installed for tests on an oceanographic vessel. Limited trials have been conducted, with significant results on common dolphins.</p> <p>IFREMER now applies on his seismic surveys mitigation measures, based on the classical international recommendations (preliminary studies for risk evaluation, MMOs onboard, amplitude ramp-up for airgun arrays); the modelling for risk evaluation has been improved.</p>

The details of the mitigation procedure have been formalized and made available to scientists applying for oceanographic cruises on Ifremer vessels. Several seismic cruises have been conducted since the procedure has been put into service.

The development and installation of an experimental PAM system on IFREMER oceanographic vessels has been achieved (based on a three-hydrophone array, a dedicated receiving chain, and post-processing by freeware *PamGuard*), and put to use on two cruises; the practical applicability of PAM in complement of the current mitigation measures is being studied.

Sonar disturbances on marine mammals:

The French army is developing a series of studies in order to mitigate sonar disturbances during military operations at sea.

These ongoing studies are involved in assessing marine mammals behaviour when affected by sonar emissions, evaluating acoustic risks using a simulation, developing post-processing algorithms for detection and classification of acoustic emissions of beaked whales, setting up a MM sightings data base.

An important study on MM distribution and behaviour, simulation of historical MM strandings and a new concept in assessing acoustical effects, is now achieved. These results will be used to improve French Navy mitigation procedures.

Thales Underwater Systems (TUS) in charge of the military low-frequency active sonar development has commissioned the CRMM/ULR and KRM (Klymene Recherche Marine, Antibes) for Defining and implementing a visual and acoustic monitoring program in order to reduce the risk against cetaceans (the test of a sound source of high power and low frequency (1-2 kHz) in the Bay of Biscay). Sea trials were held in March 2010 and the implementation of mitigation protocol has given convincing results, Further new trials at sea are planned for spring 2011

An update of the IFREMER bibliography synthesis (presently stopped at 2009) about acoustic risks for MMs is planned for mid-2011.

A new acoustic deterrent device prototype using wideband signals at moderate levels with random frequency content and devoted to seismic surveys has been developed by Ifremer and installed for tests on an oceanographic vessel. Limited trials have been conducted, with significant results on common dolphins.

IFREMER now applies on his seismic surveys mitigation measures, based on the classical international recommendations (preliminary studies for risk evaluation, MMOs onboard, amplitude ramp-up for airgun arrays); the modelling for risk evaluation has been improved. The details of the mitigation procedure have been formalized and made available to scientists applying for oceanographic cruises on Ifremer vessels. Several seismic cruises have been conducted since the procedure has been put into service.

The development and installation of an experimental PAM system on IFREMER oceanographic vessels has been achieved (based on a three-hydrophone array, a dedicated receiving chain, and post-processing by freeware PamGuard), and put to use on two cruises; the practical applicability of PAM in complement of the current mitigation measures is being studied.

GERMANY

The Federal Ministry for the Environment (BMU) organized in the BMU in Berlin a national workshop about "Underwater noise" and its effects on Small Cetaceans (9 March 2010). This workshop took place in close cooperation with the Federal Environment Agency (UBA) and the Federal Agency for Nature Conservation (BfN). Participants came from the other relevant ministries and their subsequent authorities and other scientists, NGOs and

stakeholders concerned. In the awareness of the detrimental effects of underwater noise on Small Cetaceans, the aim and the result of the workshop were:

- to reach a synopsis of the current state of research (who is working on which issues);
- to have prospects on foreseen research projects;
- to spot the knowledge gaps so far not covered by research projects;
- to reach synergies between projects and reach potential possibilities of a closer cooperation.

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

Following the instructions for the German Navy on the protection of marine mammals and maritime habitats that were enacted in September 2007, marine mammal sightings are collected continuously by the German naval fleet and recorded in a database to improve knowledge about the distribution and habitat use of abundant cetacean species. This information is taken into account for the planning of the use of sonar systems during trials. An international, 3 years project within the European Defence Agency (EDA) to establish a common marine mammal database for risk assessment was started. The data base will contain sighting records, probabilities of occurrence, habitat use and species' characteristics. Moreover, to reduce the risk for marine mammals during explosions (disposal of old ammunition in the Baltic Sea), the effect of an air bubble curtain for the attenuation of shock waves was further examined. [Velte, Ministry of Defence]

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

In 2009, a total of 12 offshore wind turbines have been constructed at the first German offshore wind farm, the testfield "alpha ventus". The noise emitted during pile driving was monitored as determined in the licensing conditions set by the Federal Maritime and Hydrographic Agency (BSH). The measurements of underwater sound were conducted according to the Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK3). For the description of the measurement requirements according to StUK see under <http://www.bsh.de/en/Products/Books/Standard/index.jsp>. Additional underwater sound measurements were conducted during pile driving for the testfield "alpha ventus" in the framework of a research project on ecological aspects of wind farms, so called "StUKplus" coordinated by the Federal Maritime and Hydrographic Agency (BSH) and funded by the Federal Ministry of the Environment. More information may be found in German under: <http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUKplus/stukplustext.jsp>. The underwater sound measurements in "alpha ventus" revealed a Sound Exposure Level (SEL) of 168 db re 1µPa at a distance of 750 m from the pile. The threshold of maximal 160 dB re 1µPa (SEL) set in the licensing conditions by BSH was exceeded by 8 dB. The report may be found in German under: <http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3-Schall-Bauphase-15Mar2010.pdf>. The results may also be found in a presentation in English under: http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Betke.pdf.

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

development.

Furthermore, the German licensing authority BSH organized on 21st March 2010 in Stralsund in the frame of the conference of the European Cetacean Society an international workshop dealing with aspects of offshore pile driving and noise mitigation. Based on the noise measurements in “alpha ventus”, scientists, authorities and agencies, NGOs and members of the offshore wind energy industry discussed the impacts of pile driving on marine mammals and the application of possible mitigation measures. Additional information about licensing conditions, noise monitoring and mitigation measures applied in “alpha ventus” may be found under:

http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Abromeit.pdf

http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Betke.pdf

http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Griessmann.pdf

http://www.bsh.de/de/Das_BSH/Veranstaltungen/Cetacean_Society/Elmer.pdf

[Boethling, BSH]

In 2009, the first German offshore wind farm “alpha ventus” was built approximately 45 km north of the island of Borkum, North Sea, in 30m water depth. The wind farm consists of 12 turbines, six built on tripod foundations and the other six on jacket foundations, all of which had to be rammed into the sea floor. Noise emissions from offshore pile-driving may injure marine mammals in the vicinity and cause large-scale disturbance and habitat displacement. BioConsult SH studied the effect of these pile-driving activities on harbour porpoises using acoustic dataloggers (T-PODs) that record harbour porpoise echolocation signals and were deployed at different distances to the construction site. Besides a distinct seasonal pattern of porpoise activities resulting in a high number of recordings during late winter and low number during late spring, we found a clear impact of pile-driving on harbour porpoise click recordings. Analysis of relative porpoise activity measured as porpoise positive minutes per hour and waiting time between consecutive porpoise recordings further revealed a clear difference between the ramming of the two types of foundations. On average, pile-driving for the tripod foundations took more than five hours for each foundation. After these six piling periods animals stayed away from the impact area for a longer period than after the six piling periods for jacket foundations that took only one hour each. Furthermore, the displacement of porpoises during the long-lasting ramming periods reached up to greater distances. The report can be downloaded at http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3_av_2009_marine_Saeugetiere.pdf.

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

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

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

Registration and occasional necropsy of stranded small cetaceans were made according to a state monitoring programme as part of the approval of the port extension of the offshore windpark industry and the due shoreline construction work. The monitoring programme is temporarily (2010), and regionally restricted to the Lower Saxony side of the Elbe estuary. The monitoring shall both evaluate, whether numbers of strandings are coinciding with the

construction work and resulting underwater noise, and whether bacteria might cause pulmonal diseases in stranded small cetaceans. During construction work in 2010 no stranded small cetaceans were registered in the observed area. [Ramdohr, LAVES]

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

LITHUANIA

None

NETHERLANDS

The 3S group currently involving four main partners (FFI, TNO, SMRU and WHOI) conducted in May-June 2010 a research trial in Norwegian waters to investigate baseline behaviour of killer whales, pilot whales and sperm whales. In previous years (2006, 2008, 2009) behavioral reactions to Low Frequency Active Sonar (LFAS) and Mid Frequency Active Sonar (MFAS) signals were observed, in order to establish safety limits for sonar operations. Publications of results are pending. In June 2011 the first of a new series of trials is scheduled to study behavioural reactions to sonar sounds for other species (N.bottlenose, humpback and minke whales).

SEAMARCO examined the hearing thresholds of a harbour porpoise after it was exposed to fatiguing sounds of various levels and durations, in order to quantify the exposure level and duration required to induce TTS, and to measure the recovery time following TTS. Two Harbour seals were studied to determine the exposure level-duration combinations of 1/1-octave noise bands that cause TTS onset, determine the recovery rate of hearing after TTS and determine the relationship between the exposure level and duration on the degree of threshold shift. The same goals apply for impulsive pile driving sounds.

References:

Kastelein, R. A., Hoek, L., Wensveen, P. J., Terhune, J. M., de Jong, C. A. F. (2010). "The effect of signal duration on the underwater hearing thresholds of two harbor seals (*Phoca vitulina*) for single tonal signals between 0.2 and 40 kHz," JASA, 127, 1135-1145.

Kastelein, R. A., Hoek, L., de Jong, C. A. F, and Wensveen, P. J. (2010). "The effect of signal duration on the underwater detection thresholds of a harbor porpoise (*Phocoena phocoena*) for single frequency-modulated tonal signals between 0.25 and 160 kHz," J. Acoust. Soc. Am. 128, 3211-3222.

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.

In 2010, within the Polish territorial waters, seismic studies were conducted with the use of medium and high frequency seismo-acoustic devices (boomer and pinger) in addition to the use of the side-scan-sonar and the multibeam probe. All the measurements were conducted by the State Geological Institute – Division of Sea Geology in consortium with the Marine Institute in Gdańsk (shipowner of the study vessel) within the framework of projects ordered by the Minister of the Environment, the Marine Office in Szczecin and the Marine Office in Gdynia.

Ranges and timelines of the studies performed as well as characteristics of the devices used are given in the Table below.

Study Area	Time lines of studies	Measurement devices applied
Pomerania Bay along with Odra Sandbank The area is limited to the North by WNW–ESE line connecting points of the following coordinates: 54°22'N, 14°35'E and 54°14'N, 15°20'E; to the East by the 15°20'E parallel; and to the West by the Polish-German border of the territorial seas and economic zones.	29.04–09.05.2010	SSS, SBP
	22.05–09.06.2010	SSS, SBP, Boomer
Range of Rewal The area of ca. 113 square km situated at the distance of about. 2,5 km (southern border) and about 12 km (northern border) from the intercept of the sea coast between Pobierowo–Niechorze.	August 2010	SSS, MBES, SBP
Region of Kuźnica (Hel Peninsula) The area of 33 square km is located at a distance of ca 3 km to ca 8 km from the intercept of the sea coast between Chałupy–Jastarnia on the Hel Peninsula.	December 2010	SSS, MBES, SBP
<p>In the area subject to the jurisdiction of the Marine Office in Gdynia and the Marine Office in Słupsk there were made a series of works to modernize water fronts and to provide anti-flooding security. These investments have been preceded by the relevant EIA the results whereof did not show any significant negative impact.</p> <p>The Marine Office in Szczecin has been implementing a project on the „Construction of protective pier for external harbour at Świnoujście”. The scope of activities involves rammer, filling and scooping works.</p> <p>Another investment which was reported to the Marine Office in Szczecin includes the „Construction of a ship station in the external harbour at Świnoujście”, implemented by the Management of Marine Ports in Szczecin and Świnoujście. This construction also involves works which may cause noise pollution in the environment, including rammer work and scooping.</p> <p>The Contractor to these works acts in agreement with the environmental decisions issued by the local authorities (Regional Directorate for Environmental Protection, the President of the Municipality and the Director of the Marine Office). The above decisions impose an obligation on the Contractor to conduct work so as to observe the provisions thereof whose aim is to enforce environmental protection. In order to protect ecosystems of the Baltic Sea a ban was imposed on scooping works during the herring spawning season, i.e. in April and May. Recently, the course of work has been subject to environmental monitoring and surveillance by the two independent entities. The monitoring of nature involves studies and measurements, while the Surveillance of Nature is in charge of analyzing, verification and controlling the compliance of works with the provisions of environmental decisions and adherence to the binding environmental standards.</p>		
SWEDEN		
Nothing to report		
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						
None reported with small cetaceans (1 ship strike incident with a common seal occurred)						
DENMARK						
None						
FINLAND						
None						
FRANCE						
18/07/2010	Unidentified whale	fractured spine	Yes	not determined	English channel area (49,8498W/ - 2,604247N)	crmm@univ-lr.fr
26/06/2010	Unidentified whale	fractured spine	Yes	not determined	Bay of biscay area (46,48333W/ - 4,75N)	crmm@univ-lr.fr
08/07/2010	Unidentified whale	fractured spine	Yes	not determined	west of Brittany 48.418 640W, - 4.832983N)	crmm@univ-lr.fr
Among the 10 dead whales identified during 2010, 3 were adrift at sea, these animals are suspected as cases of mortality attributed to vessel strike, however these carcasses could not be examined and no necropsy report has been produced in these cases. In fact, we can not certify that these animals have died from the collision with a ship or were struck after death.						
GERMANY						
None						
LITHUANIA						
None						

NETHERLANDS						
23 June 2010	Harbour porpoise	Tailstock broken	Not immediately, presumably found dead later	Unknown, ship strike reported by skipper	Eastern Scheldt, Delta Area	Marije Siemensma
POLAND						
No collision was registered in the Polish EEZ of cetaceans with the water craft.						
SWEDEN						
No known incidents in Swedish waters during 2010						
UNITED KINGDOM						
None						

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
BELGIUM			
None			
DENMARK			
None			
FINLAND			
None			
FRANCE			
None			
GERMANY			
None			
LITHUANIA			
There weren't any incidents recorded in Lithuanian Sea zone.			
NETHERLANDS			
None			
POLAND			
None			
SWEDEN			

No major incidents to report in Swedish waters
UNITED KINGDOM
None

**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; however, levels of pollutants in biota, water and sediment, and inputs of pollutants, were reported in the federal environment report 2004-2008 (available in French and Dutch), which was partly used in the Belgian input for the OSPAR Quality Status Report 2010. http://www.ecolabel.be/RFE/Rapport_RFE_FR.pdf (French) http://www.ecolabel.be/RFE/Rapport_RFE_NL.pdf (Dutch)
DENMARK
None
FINLAND
None
FRANCE
Transfer and bioaccumulation of heavy metals (mainly mercury and cadmium) in cetaceans (LIENS/ULR) Work in partnership with the Marine Protected Area of the Iroise Sea, the University of Brest and Océanopolis and pollutants (TBT, lindane, fluorenten, indenopyren and BCB 153 has started)
GERMANY
None
LITHUANIA
No new measurements have been done.
NETHERLANDS
IMARES studied redistribution processes of organic contaminants in harbour porpoises due to starvation. Liver and blubber of 36 beached harbour porpoises were analysed for PCBs, PBDEs, HBCD, PFCs and organotin compounds. These data indicate that concentrations and profiles of organic contaminants in marine top predators, such as harbour porpoises, may not only be influenced by common bioaccumulation processes such as e.g. uptake from food and metabolism, but also by emaciation. Non-lipophilic contaminants, such as PFCs, do not show differences due to emaciation. References: Van den Heuvel-Greve, M.J., S. Glorius, S. Bierman, M. Kotterman (2010). Contaminant

distribution in harbour porpoises, *Phocoena phocoena*, stranded along the Dutch coast. IMARES rapport C180/10, final draft 24-12-2010.

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 Museum of Natural History in Stockholm (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 20 harbour porpoises from the Skagerrak, Öresund and the Baltic have been sent for contaminant analyses for TBTs, PFCs and heavy metals in liver and PCB, DDT, PBDE in blubber. Results will be presented in 2011 Annual report.

UNITED KINGDOM

During 2010, Defra funded the analysis of retrospective samples from 100 harbour porpoises (2004-2008) for chlorinated biphenyls (PCBs), organochlorine pesticides (OCs) and brominated diphenyl ethers (flame retardants, PBDEs). Analyses are ongoing at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS, <http://www.cefas.co.uk/>) and results are expected to be available later in 2011, progressing work towards a 20 year time series of marine contaminant analysis in UK stranded harbour porpoises.

In 2010, analyses of long-term temporal trends in blubber concentrations of PCBs (n=440; 1991-2005) (Law et al. 2010a) and PBDEs (n=415; 1992-2008) (Law et al. 2010b) in UK-stranded harbour porpoises were published. A non-parametric statistical method was used and potential confounding factors (area, season, by-caught or stranded, age class, sex, blubber thickness and lipid content) were investigated and found not to confound any of the trends identified. Summed PCB concentrations in UK harbour porpoises are declining only slowly from 1991-1997 and then leveled off up to 2005 as a result of a ban on the use of PCBs which began more than two decades ago (Law et al 2010a). This decline is much slower than that observed for organochlorine pesticides (such as DDTs and dieldrin). There are also regional differences in PCBs and OC pesticide levels within UK waters (lower levels in Scotland), possibly reflecting differences in diffuse inputs and transfer between regions, e.g via the atmosphere. The reason for the slow PCB decline is not known but likely to involve continuing diffuse inputs from e.g. PCB-containing materials in storage, construction and in landfills, and to the substantial reservoir of PCBs already in the marine environment. Further efforts to limit or eliminate PCB discharges to the marine environment are still needed.

PCB exposure data has also been generated for UK-stranded bottlenose dolphins (n=15) (Jepson et al 2008) and killer whales (n=5) for the same period (1991-2005) (ICES 2010). The mean level for PCBs in UK-stranded bottlenose dolphins was almost 100,000ng/g lipid weight (Jepson et al 2008) and 225,000ng/g lipid weight for the killer whales (ICES 2010). Although these data are from stranded animals, they show that PCB exposures are similar or greater than levels in biopsied bottlenose dolphins in the SW Atlantic such as Indian River Lagoon (Florida, US), Sarasota Bay (Florida, US) and Charleston (North Carolina, US) (ICES 2010). PCB blubber levels in UK-stranded killer whales are also similar to the very highest PCB levels recorded in adult transient male killer whales blubber in British Columbia, Canada (ICES 2010). 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 (€9750) (Project ref: SSFA/ASCOBANS/2010/3).

For BDEs, nine congeners were: BDE28, BDE47, BDE66, BDE85, BDE99, BDE100,

BDE138, BDE153 and BDE154. The maximum Σ BDE concentration observed was 15.7 mg/kg-1 lipid wt in an animal which died in 1993. The median concentrations peaked around 1998, and have reduced by between 55% and 76% to 2008. The BDE congeners found in UK marine mammals arise primarily from the penta-mix PBDE product, which was banned in the EU in 2004 (Law et al 2010b).

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.

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.

Jepson, P.D., Tregenza, N. and Simmonds, M.P. (2008) Disappearing bottlenose dolphins (*Tursiops truncatus*) – is there a link to chemical pollution? (Scientific Committee of the International Whaling Commission 2008)

Law, R.J., Bersuder, P., Barry, J., Deaville, R., Reid, R.J., Jepson, P.D. (2010a) Chlorobiphenyls in the blubber of harbour porpoises (*Phocoena phocoena*) from the UK: levels and trends 1991-2005. *Marine Pollution Bulletin* 60, 470-473.

Law, R.J., Jon Barry, Philippe Bersuder, Jon Barber, Rob Deaville, Robert J. Reid and Paul D. Jepson (2010) Levels and trends of BDEs in blubber of harbor porpoises (*Phocoena phocoena*) from the UK, 1992 – 2008 *Environmental Science & Technology* 44, 4447–4451.

2.5 Other Forms of Disturbance

BELGIUM
During the summer and fall of 2010, a solitary sociable bottlenose dolphin was regularly present in Belgian waters, very close inshore. It swam up the river Scheldt (see Haelters & Kerckhof, 2010). The public was advised not to disturb the animal, or to swim with it, and to keep a safe distance with small vessels. Images are available to compare the animals with sightings of bottlenose dolphins elsewhere.
Haelters, J. & Kerckhof, F., 2010. Belgische kust en Schelde in de ban van een tuimelaar tijdens de zomer en najaar van 2010. <i>Natuur.Focus</i> 9(4): 174-175. (in Dutch).
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
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. Both boat surveys and the deployment of stationary hydrophones (T-PODs) have been used to acquire the necessary baseline data. The results of the study indicate that harbour porpoises use the area of the wind farm after construction.</p> <p>IMARES finalized a study on the possible impact of the Prinses Amalia Wind farm on harbour porpoises during the second year of operation. From the 1st of September 2009 until the 2nd September 2010 the acoustic activity of harbour porpoises was studied by means of two CPODs in the wind farm and two CPODs in a reference area at 5.5 km north of the wind farm. The results showed no difference in acoustic activity between the two areas, indicating no effect of the wind farm on the occurrence of harbour porpoises.</p> <p>In 2010, the Masterplan Monitoring and researching ecological effects of Dutch offshore wind farms was published. The report describing this was made by Deltares, they were commissioned by Rijkswaterstaat, to work out the contents of a master plan for an umbrella monitoring and research programme required to fill in the gaps in information in determining the ecological effect of OWFs. The report is publicly available at www.noordzeeloket.nl (http://www.noordzeeloket.nl/Images/Final%20report%20Masterplan%20Ecological%20effects%20Offshore%20wind%2011052010_tcm14-4508.pdf)</p> <p>From spring 2009 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>Polanen Petel T van, Geelhoed S & Meesters E, 2010. Harbour porpoise occurrence in relation to the Prinses Amaliawindpark. IMARES Report number C177/10.</p> <p>Scheidat M, Aarts G, Bakker A, Brasseur S, Carstensen J, Leeuwen PW van, Leopold M, Polanen Petel T van, Reijnders P, Teilmann J, Tougaard J & Verdaat H, 2009. Assessment of the Effects of the Offshore Wind Farm Egmond aan Zee (OWEZ) for Harbour Porpoise (comparison T0 and T1). IMARES Texel.</p>
POLAND
<p>The increased use has been observed of speedboats and water scooters in the Polish coastal zone.</p> <p>Violations have been continuously observed of the legal regulations (Decree No 55/06 of the Voievode of Pomerania as of May 15 2006) on the Nadmorski (Coastal) Landscape Park concerning the limitation of speedboat use outside the marked routes.</p>
SWEDEN
Nothing to report
UNITED KINGDOM
<p>The Ceredigion County Council study of cetacean site use and boat traffic along the Marine Heritage Coast and Cardigan Bay SAC is in its 18th year with over 8000 hours of volunteer effort.</p>

3 MARINE PROTECTED AREAS FOR SMALL CETACEANS

BELGIUM
<p>In June 2010 a new area of approximately 1.000 km² was proposed to the EC in the framework of the Habitats Directive – however not specifically for the protection of marine mammals (Habitats 1110 – 1170).</p> <p>The FOD Public Health, Food Safety and Environment, DG Environment, Marine Environment, funded a scientific proposal for conservation objectives for MPAs in Belgian waters (Degraer et al., 2010).</p> <p>Degraer, S., Courtens, W., Haelters, J., Hostens, K., Jacques, T., Kerckhof, F., Stienen, E. & Van Hoey, G., 2010. Bepalen van instandhoudingsdoelstellingen voor de beschermde soorten en habitats in het Belgische deel van de Noordzee, in het bijzonder in beschermde mariene gebieden. Eindrapport in opdracht van de Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, Directoraat-generaal Leefmilieu. Brussel, België. 119 p.</p>
DENMARK
<p>Advice on NATURA 2000 areas in terms of how porpoises use the inner Danish waters were given by NERI-AU and others previously.</p>
FINLAND
None
FRANCE
<p>Between October 2008 and September 2010, 96 marine Natura 2000 sites have been designated by France.</p> <p>Among all existing Natura 2000 sites in the ASCOBANS area, Bottlenose dolphin is present in 39 and Harbour porpoise in 38, both on the Channel and Atlantic coast.</p> <p>Management Plan of the Marine Protected Area in Iroise Sea (West Brittany) has been adopted. This plan is applicable to the Natura 2000 sea site of the archipelago of Molene and Ouessant Island.</p> <p>The ministry of ecology has delegated the operational implementation of a knowledge programme concerning seabirds and marine mammals (Bottlenose dolphin and harbour porpoise) to the French agency of marine protected area, for the management of the French MPA already designated and for future offshore Natura 2000 designation:</p> <ol style="list-style-type: none"> 1) dedicated aerial surveys (summer 2011-winter 2012-13): these surveys will cover the entire EEZ and will be divided into several layers including a coastal layer encompassing the majority of the Natura 2000 sites. 2) Observations on platforms of opportunity (on fisheries surveys conducted by Ifremer 3) electronic tagging of Yelkouan and Cory's Shearwater in Mediterranean coast and Manx Shearwater in Brittany (spring 2011- winter 2012) 4) Acoustic detection of Harbour porpoises (experimentation in 2011- operational implementation in 2012) <p>National Agency for the Marine Protected Areas (Brest): work in progress for the creation of others MPA, through a national strategy.</p>
GERMANY
None

LITHUANIA
No protected areas for cetaceans are identified in Lithuania.
NETHERLANDS
<p>A study started in 2006 to identify candidate Special Areas of Conservation (SACs) under the Habitats Directive and OSPAR in the Dutch sector of the North Sea. In the Dutch Continental Shelf and Coastal Waters four sites have been identified as potential 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 Vlake 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 2010. The offshore areas will be designated before the end of 2012.</p> <p>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. The conservation target will probably be formulated as follows: "Maintain the extent and quality of habitat in order to maintain the population".</p> <p>http://www2.minlnv.nl/thema/groen/natuur/natura2000_2006/noordzee_4habitatrlg/Inspraak_aanmelding.htm</p> <p>http://www.noordzeenatura2000.nl/index.php?option=com_docman&task=cat_view&gid=57&Itemid=89</p>
POLAND
<p>In line with the guidelines set up at the Biogeographic Seminar on November 23-25 2009, actions are underway to extend the area of PLH220032 site.</p> <p>The year 2010 was the first year of the formal functioning in Poland of the new sites protected under the Baltic Sea Protected Areas – HELCOM BSPAs. Two of them embrace Natura 2000 sites in the Pomeranian- and Puck Bays, both are of significance for the protection of small cetaceans. Both sites do not have so far respective management plans which would take into account the protection of small cetaceans. The development of such plans is envisaged over the next 3-4 years.</p>
SWEDEN
<p>After the assessment by the EU Commission of the Natura 2000 network in the Baltic and Atlantic regions, SEPA has been commissioned to report to the government of possibilities to add harbour porpoise to the species list in some existing sites as well as considering designating new ones on the west coast of Sweden, pending the results of the survey in Skälderviken. At the moment there are three Natura 2000 sites with harbour porpoise. During 2010 SEPA suggested addition of harbour porpoise in 2 existing sites. The results from the survey in Skälderviken confirm the presence of harbour porpoise there and a new Natura 2000 site, particularly designated to protect the species, was proposed to the Swedish government during 2010. Up to date no final decision has been taken by the government.</p>
UNITED KINGDOM
<p>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</p>

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.
3.1 Sources of GIS data of the boundaries (and zoning, if applicable)
BELGIUM
None
DENMARK
Please contact Signe Svegaard, NERI-AU, sign@dmu.dk
FINLAND
None
FRANCE
<p>A Agence des aires marines protégées 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, de l'Énergie du Développement durable et de la Mer Grande Arche Tour Pascal A et B 92055 La Défense CEDEX Natura 2000 network charlotte.de-pins@developpement-durable.gouv.fr Tel : + 33 (01) 40 81 30 53</p>
GERMANY
None
LITHUANIA
None
NETHERLANDS
<p>More information on the marine Natura2000 sites in the Netherlands can be obtained at: http://www.noordzeenatura2000.nl/</p>
POLAND
<p>Detailed borders of both areas are available at the General Directorate of Environmental Protection in Warsaw, PI (www.gdos.gov.pl/en/kontakt). They are also displayed on the website: http://natura2000.gdos.gov.pl/natura2000/en/jednostki.php.</p>
SWEDEN
None

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

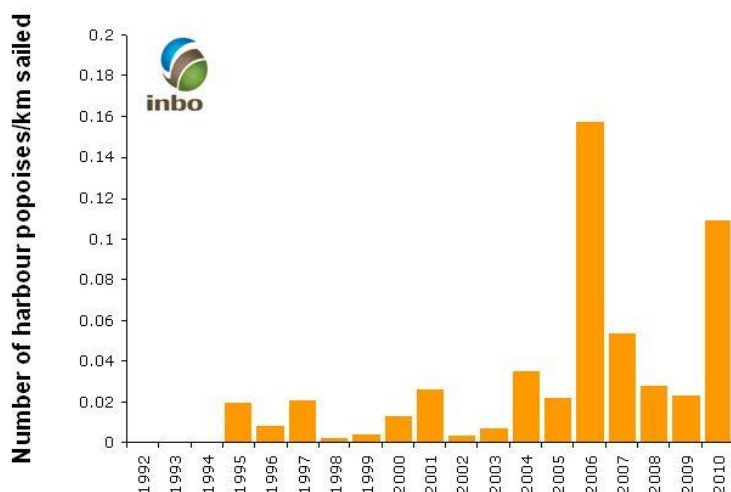
BELGIUM

Aerial surveys (distance sampling) continue (MUMM). Marine mammals are recorded during ship-based seabird surveys (INBO), and a towed hydrophone system, adapted to detect the presence of cetaceans, is being used on some campaigns with the vessel Zeeleeuw (VLIZ).

A solitary bottlenose dolphin stayed off the Belgian coast for a number of months, and on one occasion two common dolphins were observed (IMARES).

The RBINS (MUMM) provided assistance to the northern French strandings network for transporting two live stranded harbour porpoises towards the rehabilitation centre at Harderwijk (The Netherlands); one of these animals was released, the other one will be released soon (situation 9 March 2011).

Overviews of the results of aerial surveys are reported in the reports on the monitoring of the effects of offshore windfarms. An overview of the number of harbour porpoises sighted per survey km per year during seabirds at sea surveys by the INBO is given in the graph below (data Research Institute for Nature and Forest (INBO) (unpublished).



DENMARK

There have been no surveys or abundance estimates made on cetaceans in Danish waters in 2010.

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...
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 boat survey of cetaceans in relation to oceanographic, planktonic and pelagic fish patterns in the Bay of Biscay
PELGAS Program, Ifremer, CRMM/ULR : PELGAS spring survey carried out yearly on the continental shelf of the bay of Biscay: Pelagic fish, plankton, physical parameters and top predators are recorded simultaneously IBTS Program, Ifremer, CRMM/ULR: IBTS winter survey carried out yearly on the english channel area: Pelagic fish, plankton, physical parameters and top predators are recorded simultaneously
EVOHE:Program Ifremer, CRMM/ULR: EVOHE fall scientific fishing sampling carried out yearly on the bay of Biscay with top predators recorded on line transect.
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.
Cetacean distributions and relative abundances were surveyed over the shelf of the Bay of Biscay (May) and English Channel (January) by CRMM/ULR in order to determine relative abundances, preferential habitats and relationships with distribution of small pelagic fish as determined by simultaneous acoustic survey carried out by Ifremer/ Instituto Español de Oceanografía (IEO) research vessel Thalassa. This survey followed a standardized protocol in use since 2003 in Bay of Biscay area (PELGAS survey) and since 2007 in the English Channel (IBTS survey) and since 2009 in the bay of Biscay in fall. In 2007 and 2008, collaboration between CRMM/ULR and the Centro Oceanográfico de Vigo (IEO) allowed data on cetacean distribution to be collected by using standardized protocol and same research vessel during April and September pelagic fish survey in the south of the Bay of Biscay (PELACUS survey).
Aerial surveys carried out by Oceanopolis Brest/ Iroise Sea MPA using line transect protocol to estimate the abundance and the seasonality of small cetaceans in Iroise sea (west Brittany)
Boats survey in the Nord Pas de Calais area in the framework of FilManCet study to get an estimate of the abundance of harbour porpoise.
The CRMM/ULR with input from national stranding network partners, has produced a synthesis of the spatial distribution for the bottlenose dolphin and harbour porpoise on the

French coasts.

GERMANY

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

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

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

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

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

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

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

A large research project initiated and coordinated by the Federal Maritime and Hydrographic Agency (BSH) and funded by the Federal Ministry of the Environment is dealing among others very extensively with possible impacts of the construction and operation of offshore

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

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

Moreover, the “StUKplus-Project” deals with the joint analysis and evaluation of all data on the abundance and distribution of marine mammals in German waters gathered by research projects, national monitoring activities and environmental impact assessments (EIAs) for offshore wind farms. The main objectives of this working package are the evaluation of data from EIAs, recommendations for further investigations for EIAs and monitoring of the impacts of offshore wind farms and the joint analysis of all available data for the German EEZ to be able to study cumulative effects. The FTZ is analyzing the data of visual and acoustical investigations in cooperation with the BSH. Up to the end of 2010, a major part of the data from EIAs of planned offshore wind farms in the German EEZ were evaluated and analyzed. A total effort of 81,804 km of aerial transect lines for EIAs have resulted in the following effective effort as well as the following number of harbour porpoise sightings:

- in spring: 24,872 km with 1548 sightings (of 1650 adults with 12 calves)
- in summer: 27,522 km with 935 sightings (of 1104 adults with 116 calves)
- in autumn: 15,058 km with 392 sightings (of 454 adults with 30 calves)
- in winter: 14,352 km with 532 sightings (of 620 adults with 10 calves)

[Boethling, BSH]

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

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

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

Two aerial surveys were carried out in the northeastern part of the German North Sea, in the area of the pSCI Sylt Outer Reef. In June 2010, an effort of 1.660 km could be achieved and a total of 309 harbour porpoise sightings (381 individuals, of these 33 calves) were recorded. In July 2011, effort has been comparable with 1.620 km, but the sighting rate was much lower: a total of 127 sightings with 150 individuals (of these 5 calves) were recorded. In the German Baltic Sea and in parts of Danish waters, three aerial surveys were conducted in spring, summer and autumn of 2010. The effort has been comparable between the seasons with a total of 1.500 km and highest sighting rate has been recorded in summer. These surveys are part of the German monitoring programme of Natura 2000 sites, funded by the Federal Agency for Nature Conservation (BfN). [Siebert, FTZ]

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

LITHUANIA

There are no researching works

NETHERLANDS

IMARES conducted line transect distance sampling aerial surveys within a research project funded by the ministry EL & I covering all Dutch national waters in the North Sea. Flights were conducted in Summer (July 2010), Autumn (October/November 2010) and Spring (March 2011). Analyses is on-going.

The NZG Marine Mammal Database is part of the Dutch Seabird Group (NZG) and was 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 programmes: seawatching and offshore seabird surveys. More information is available at: <http://home.planet.nl/~camphuys/Cetacea.html>.

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). Monthly cetacean surveys are being conducted from the bridge of the Stena Line ferry between Hoek van Holland and Harwich. In 2010 404 porpoises were counted during these trips, with 316 in April. It was the first year without sightings of White-beaked Dolphins.

In the Oosterschelde estuary research is conducted to establish the (minimum) number of Harbour Porpoises and calves throughout the year. In 2010 15 porpoises including calves were counted. Less than the 37 animals counted in 2009, probably due to the less suitable observation conditions in 2010. Another research project is to determine whether Harbour Porpoises pass the Storm Surge Barrier by means of CPODs.

TNO has tested improved acoustic detection and localization methods (see 4.2) along the Norwegian coast in February 2011. Methods are scheduled to be implemented during field studies in June 2011 with 3S-group (see 2.1). Aim is to detect and follow (Northern.bottlenose) whales during their (deep) dives under water. Also, the efficacy and quality of towed array surveys has been investigated with several data sets and will be published in 2011.

References:

von Benda-Beckmanna, AM, FPA Lam, DJ Moretti, K Fulkerson, MA Ainslie, SP van IJsselmuide, J Theriault and SP Beerens 2010. Detection of Blainville's beaked whales with towed arrays. Applied Acoustics 71 (11), 1027-1035

Moretti, DJ, FPA Lam, AM von Benda-Beckmann, L Thomas, E McCarthy, J Ward, A Dilley 2011 The efficacy of a towed array based line transect survey of Blainville's beaked whales using baseline data from the Atlantic Undersea Test and Evaluation Center (AUTECE) array. Abstract submitted to DCLDE workshop, Oregon, Aug.2011

von Benda-Beckmann, AM, S Rankin, SP Beerens, AT van Zon, FPA Lam. 2011

Comparative study of towed array baselines for instantaneous localization of marine mammals. Abstract submitted to DCLDE workshop, Oregon, Aug.2011

POLAND

The Project is under way concerning active protection of harbour porpoise against catch in the Puck Bay. Moreover, Poland participates in the SAMBAH 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

SWEDEN

A study of population structure of harbour porpoise in the Baltic is carried out by Per Palsböll, Stockholm University. The general aim of the study is to determine if the harbour porpoises in the Baltic constitute a demographically isolated population.

The specific aims and methods of the study are:

1. To isolate and characterize 350 SNPs in Baltic harbour porpoise.
2. To identify pairs of 1st and 2nd order relatives among harbour porpoise samples from the Baltic and Swedish west coast.
3. To estimate the abundance from the number of observed pairs of 1st and 2nd order relatives using demographic simulations.

A Life Nature application for the SAMBAH project was approved and the Grant Agreement was signed in November 2009 by Kolmårdens Djurpark as the Coordinating Beneficiary. This project is running over 5 years (2010-2014), and aims at producing an estimate of the total abundance and distribution of harbour porpoises in the Baltic. Three of the countries around the Baltic (Finland, Poland and Denmark) are associated Beneficiaries, whereas the Baltic States will be subcontractors to Sweden. The project is based upon data from passive acoustic porpoise echolocation loggers, which will be kept in operation during 2011 and 2012. This data will be used as input to state of the art population density statistics, and subsequently allow for habitat modelling.

The abundance of harbour porpoise has been investigated in "Skälderviken", a bay on the south western coast of Sweden. PCL:s Porpoise click loggers were being used. 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 and SEPA has now proposed to the Swedish government for that part to become a Natura 2000 site.

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, white-beaked dolphin, white-sided dolphin (*Lagenorhynchus acutus*), bottlenose dolphin (*Tursiops truncatus*), short-beaked common dolphin, striped dolphin (*Stenella coeruleoalba*), long-finned pilot whale, minke whale, fin whale, sperm whale, and all beaked whale species combined. Results of these analyses will become available in the coming year.

Countryside Council for Wales (CCW) Monitoring report No. 68. CCW has contracted Sea Watch Foundation to collate and analyse all available cetacean distribution and abundance data, provided by various NGOs, developers and CCW. This has resulted in a high resolution dataset for Wales based on a GIS platform and will underpin CCW's advice on

protected areas and oil, gas and renewable energy exploration.

A Bottlenose Dolphin PhotoID study continues in collaboration with CCW, Sea Watch Foundation and Marine Awareness North Wales. We now know a significant proportion of the Cardigan Bay SAC population use these waters during autumn and winter their use of the area extends to the Dee Estuary and Isle of Man.

In Jersey the marine biology section of the Societe Jersiaise are now responsible for receiving and collating 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 and a summary is published in the section's Annual Report.

4.2 New Technological Developments

BELGIUM
None
DENMARK
None
FINLAND
None
FRANCE
Trials of a passive acoustic monitoring in the archipelago of Molene on the resident group of bottlenose dolphins (Iroise Sea MPA/ENSIETA/Oceanopolis). The goal is to implement a permanent acoustic monitoring in addition to the line transects and the photo-identification.
GERMANY
A new technical design for an air bubble curtain system was developed and tested in 2010 by the FTZ in cooperation with FH Kiel gGmbH. This system should be used as a sound mitigation method during pile driving installations of offshore wind turbines. [Siebert, FTZ] An international, 3 years project within the European Defence Agency (EDA) to establish a common marine mammal database for risk assessment was started. The data base will contain sighting records, probabilities of occurrence, habitat use and species' characteristics. [Siebert, FTZ]
LITHUANIA
None
NETHERLANDS
TNO has built and tested improvements of the acoustic marine mammal detection array Delphinus. See also 4.1. 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 Delphinus towed array. This triplet should be capable to discriminate between the leftward/rightward detection of mammal sounds. Software of the Delphinus system has been upgraded to display detection of marine mammals in a geographical display in real time.

POLAND
None introduced
SWEDEN
Nothing to report
UNITED KINGDOM
None

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, funds a short-term project (2010-2011, 3 months) on the investigation of the diet (using stomach contents) of harbour porpoises stranded in Belgium. The project is limited to a description of the methodology, the setting up of a reference collection of fish bones, the analysis of a small number of stomach contents, and an overview of available samples (see Annex 2 of AC18/Doc.2-01).
DENMARK
<p>a) Satellite tags attached to 6 harbour porpoises in inner Danish waters</p> <p>b) Biopsy samples were also taken on those six harbour porpoises.</p> <p>c) 25 harbour porpoises bycaught in inner Danish waters were dissected and tissue samples taken.</p> <p>Please contact Jonas Teilmann, NERI-AU (jte@dmu.dk) for more information.</p>
FINLAND
None
FRANCE
The French stranding network is nationally coordinated by CRMM/ULR (Centre de Recherche sur les Mammifères Marins, Université de La Rochelle) 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 CRMM/ULR. Statistics of stranding for the coast of France in 2009 indicate more than 662 cetaceans reported (2010 compilation available) concerning 2010 statistic of stranding for the coast of France in 2010 revealed 495 marine mammals reported (2010 compilation not yet ready) data input in progress (CRMM/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).
GERMANY
A study about the classification of marine mammal signatures with methods of speech

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

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

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

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

The results of the acoustic monitoring prior to construction may be found under: http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/alpha_ventus_fg_TPODs_090121.pdf as well as http://www.bsh.de/de/Meeresnutzung/Wirtschaft/Windparks/StUK3/StUK3_av_2009_marine_Saeugetiere.pdf

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

LITHUANIA

None

NETHERLANDS

None

POLAND

No other research

SWEDEN

A study on environmental contaminants in harbour porpoises from Swedish waters is carried out by Stockholm Museum of Natural History, SMNH. In addition, cooperation has started between SMNH and the Veterinary Institute in Uppsala. 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.

UNITED KINGDOM

Charting progress 2

In 2010, Charting Progress 2 is a comprehensive report on the state of the UK seas was published by the UK Marine Monitoring and Assessment community, which has over 40 member organisations. The report is based on a robust, peer-reviewed evidence base and describes progress made since the publication of Charting Progress in 2005. It provides key findings from UK marine research and monitoring for use by policy makers and others, and will form the basis of the UK's first report for the Marine Strategy Framework Directive. The report includes a summary cetacean section. During 2011, the feeder chapter for this summary section will be published. Charting progress 2 is available from <http://chartingprogress.defra.gov.uk/>

Joint Cetacean Protocol (JCP)

The JCP was first introduced at the 2007 AC meeting. This is a web based portal for the collection and collation of effort-related sightings data. In 2010, the Phase I analysis was completed, which focused on a subset of Irish Sea data. Density surface models were fitted to combined data sets, by generalising available line transect sightings data to data that did not include distances to obtain estimates of density. Density surfaces varying in time could be successfully predicted for harbour porpoise, minke whale, bottlenose dolphin, common dolphin and Risso's dolphin. A power analysis showed that, for harbor porpoises, bottlenose dolphin and common dolphin, 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. For other species and earlier time periods, only very large changes in modelled population density would be detectable. The report is available from: <http://www.creem.st-and.ac.uk/len/papers/PaxtonJNCC2010.pdf>

Funding has recently been secured to undertake a full analysis of the distribution and relative abundance estimates (including 95% confidence intervals, trends and the power to detect those trends) for all cetaceans in European Atlantic waters. The results are expected to provide a substantial contribution to the reporting requirements of the Habitats Directive and, potentially, MSFD.

The European Commission are currently developing the guidance for Article 17 reporting under the Habitats Directive (FCS) required in 2013. Following feedback from various Member States and ICES (2009) on the 2007 reporting round for cetaceans, there will be 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.

C. USE OF BY-CATCHES AND STRANDINGS

5 POST-MORTEM RESEARCH SCHEMES

BELGIUM

Contact details of research institutions / focal point

Jan Haelters, Royal Belgian Institute of Natural Sciences (RBINS), Department MUMM

Thierry Jauniaux, University of Liège (ULg) Jan Haelters, Royal Belgian Institute of Natural

Sciences (RBINS), Department MUMM Thierry Jauniaux, University of Liège (ULg)
Methodology used (reference, e.g. publication, protocol)
Standardised methodology, a.o. described in: Jauniaux, T., Garcia Hartmann, M., Haelters, J., Tavernier J. & Coignoul, F., 2002. Echouage de mammifères marins: guide d'intervention et procédures d'autopsie. Annales de médecine vétérinaire 146: 261-276 Kuiken & Hartmann, G., 1991. Proceedings of the first ECS workshop on cetacean pathology: dissection techniques and tissue sampling. ECS newsletter 17.
Collection of samples (type, preservation method)
Depending on the state of decomposition, all relevant samples for toxicology, histopathology, parasitology, virology, bacteriology, genetics, diet and age are collected. In some cases cranium or entire skeletons are collected. Preservation: different according to the sample: formaldehyde, alcohol, freezing at –18°C or –80°C, tissue slide, ...
Database (Number of data sets by species, years covered, software used, online access)
+20.000 samples, including some samples from animals stranded or bycaught in The Netherlands and France; samples originating from +900 animals of different species, including pinnipeds
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
A web application is being developed which will contain data on strandings and sightings of marine mammals in Belgium (now available on www.mumm.ac.be), and allow for the provision of selected samples for dedicated scientific research: see: Jauniaux, T., De Cauwer, K., De Winter, J., Haelters, J., Jacques, T.G., Scory, S. & Coignoul, F., 2009. The Belgian Marine Mammal Biobank: a tool to stimulate tissue exchange. Report submitted to the meeting of the Advisory Committee of ASCOBANS, Bruges, 20-24 April 2009. Doc. AC16/44
DENMARK
Contact details of research institutions / focal point
National Environmental Research Institute, Aarhus University (NERI-AU)
Methodology used (reference, e.g. publication, protocol)
None

Collection of samples (type, preservation method)
Most animals are destroyed with no collection of samples. However NERI-AU and the Fisheries and Maritime Museum in Esbjerg collects samples from some few individuals and stores those. In 2010 25 bycaught and 3 stranded animals were dissected and tissue samples taken, and biopsy samples were taken from 6 live-caught individuals.
Database (Number of data sets by species, years covered, software used, online access)
None NERI-AU has a long-term data base to store samples
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None
FINLAND
Contact details of research institutions / focal point
None
Methodology used (reference, e.g. publication, protocol)
None
Collection of samples (type, preservation method)
None
Database (Number of data sets by species, years covered, software used, online access)
None
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None
FRANCE
Contact details of research institutions / focal point
Centre de Recherche sur les Mammifères Marins, Université de La Rochelle, La Rochelle CRMM/ULR willy.dabin@univ-lr.fr

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 and techniques)
Collection of samples (type, preservation method)
<p>Biodemographics samples: gonads (formalin) and teeth (frozen)</p> <p>Diet and feeding ecology: stomach contents (frozen) and blubber fatty acids and stable isotope (frozen)</p> <p>Genetics: skin and kidney (frozen and alcohol)</p> <p>Toxicologic: heavy metal and POP's analysis on muscle, liver and kidney (frozen with specific packaging)</p> <p>Parasitology (alcohol)</p> <p>Histopathology (formalin)</p> <p>Bacteriology and virology (frozen)</p>
Database (Number of data sets by species, years covered, software used, online access)
Access 2000 data base since 1972 with 16776 stranding recorded with 3188 individuals sampled
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
http://cmm.univ-lr.fr/ with stranding maps
GERMANY
Contact details of research institutions / focal point
<p>Lower Saxony (LS): LAVES-Institute for Fish & Fishery Products Schleusenstr. 1, D-27472 Cuxhaven [Dr S. Ramdohr]</p> <p>Schleswig-Holstein (SH): FTZ, Werftstr. 6, D-25761 Büsum [PD Dr. Ursula Siebert]</p>
Methodology used (reference, e.g. publication, protocol)
<p>LS: Basic biological and anatomical data were collected and registered so far. Necropsy is performed occasionally.</p> <p>SH: Post mortem examinations were performed according to the Proceedings of the First ECS Workshop on Cetacean Pathology (Kuiken and Hartmann, 1993). Measurements were taken in metric system.</p>
Collection of samples (type, preservation method)
<p>LS: Pathological samples will be collected and examined during necropsy if required.</p> <p>SH: All organ systems were examined macroscopically and samples of lesions and different organ systems, including lungs, trachea, stomach (1st, 2nd, and 4th compartment), intestine, esophagus, liver, pancreas, thyroid gland, adrenal gland, kidney, urinary bladder, testis, uterus, ovary, spleen, thymus, pulmonary and intestinal lymph nodes, retropharyngeal lymph</p>

nodes, heart, aorta, skeletal muscles, rete mirabilis of the intercostal musculature, skin, blubber, brain, spinal cord, eye, bone, bone marrow, and tissue of the aural peribullar cavity, blood, urine etc. Formalin, alcohol, other special fixation, frozen at –20-30°C or 70-80°C, OCT etc.
Database (Number of data sets by species, years covered, software used, online access)
<p>LS: Data were collected and registered for administrative purpose so far. Scientific analysis is postponed.</p> <p>SH: MySQL, Postgresql, Access, Excel</p> <p>Between 1990 and 2010 the following number of data sets has been collected per species (data recorded until 15.01.11):</p> <p>Phocoena phocoena: 2799</p> <p>Delphinus delphis: 6</p> <p>Lagenorhynchus albirostris: 26</p> <p>Lagenorhynchus acutus: 1</p> <p>Stenella caeruleoalba: 1</p> <p>Delphinapterus leucas: 1</p> <p>Delphinapterus ampullatus: 1</p> <p>Physeter macrocephalus: 6</p> <p>Balaenoptera acutorostrata: 6</p> <p>Balaenoptera physalus: 6</p> <p>Globicephala melaena: 3</p> <p>Tursiops truncatus: 1</p> <p>Mesoplodon bidens: 1</p>
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
<p>LS: Collecting information about incidental strandings and sightings by-chance is continued (see at http://www.wattenmeernationalpark.de/nds)</p> <p>SH: Data should be put in an international data base after publication. Use and interpretation of data sets should be restricted. Exchange and comparison of all data collected in different countries. This will give a more precise picture of the different subpopulations of harbour porpoise.</p>
LITHUANIA
Contact details of research institutions / focal point
None
Methodology used (reference, e.g. publication, protocol)
None
Collection of samples (type, preservation method)
None

Database (Number of data sets by species, years covered, software used, online access)
None
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
There is no any researching works
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 Janiaux and Siebert
Collection of samples (type, preservation method)
<p>Depending on conservation state:</p> <ol style="list-style-type: none"> 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)
<p>From December 2009 to November 2010 a total of 100 harbour porpoises were analysed with post-mortem examinations. The work was carried out at the Department of Pathobiology, Faculty of Veterinary Medicine, Utrecht University.</p> <p>Within the by-catch mitigation project by the Coastal and Marine Union all participating fishermen have a permit from the government to land by-caught harbour porpoises. If by-catch occurs, transport of the animals to the department of pathobiology at the University of Utrecht for further examination is facilitated. Vessel information is handled anonymously.</p> <p>All strandings are collated on the website of Naturalis (www.walvisstrandingen.nl). In 2010 430 Harbour Porpoises, 1 (Long-finned) Pilot Whale, 2 White-beaked Dolphins, 1 Striped Dolphin, 1 Minke Whale and 1 Humpback were found on the beaches and registered.1</p>

Sowerby's Beaked Whale stranded alive, pushed back into sea and stranded dead in South England a few days later. A young female Killer Whale 'Morgan' was captured and brought to the rehab center in Harderwijk.
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 performed according to the procedure 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)
<p>Data have been entered into the standard Access database since 1988. There is no on-line access to this base.</p> <p>The base contains 118 reports on porpoise bycatch or stranding onshore, and 16 reports on other species of small cetaceans including: <i>Stenella coeruleoalba</i>, <i>Lagenorhynchus albirostris</i>, <i>Lagenorhynchus acutus</i> and <i>Physeter catodon</i>.</p> <p>Data have been entered into the standard Access database since 1988. There is no on-line access to this base.</p> <p>The base contains 118 reports on porpoise bycatch or stranding onshore, and 16 reports on other species of small cetaceans including: <i>Stenella coeruleoalba</i>, <i>Lagenorhynchus albirostris</i>, <i>Lagenorhynchus acutus</i> and <i>Physeter catodon</i>.</p>

Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
None
SWEDEN
Contact details of research institutions / focal point
Anna Roos, Dep 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)
Skin, blubber, muscular tissue, kidney, liver, brain, lung, spleen, stomach, intestines, teeth etc are taken and stored deep frozen in the SMNH Environmental Specimen Bank.
Database (Number of data sets by species, years covered, software used, online access)
SMNH has a database of porpoise samples from 1972 till today, including more than 700 porpoises. Software: MySQL. No online access yet. Data include: species, location, cause of death, blubber thickness (several places), length, weight, weight of several organs etc. SMNH also has a database on reported live animals, all published on line at www.nrm.se/tumlare
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
SMNH also host a web page where the public can report sightings of live porpoises. http://www.nrm.se/tumlare
UNITED KINGDOM
Contact details of research institutions / focal point
UK Cetacean Strandings Investigation Programme (CSIP). Contact point- Rob Deaville, Institute of Zoology, Regents Park, London, NW1 4RY, ENGLAND. rob.deaville@ioz.ac.uk
Methodology used (reference, e.g. publication, protocol)
Methodology in Jepson <i>et al</i> (2005) followed (Jepson, P.D. (editor) (2005) Cetacean Strandings Investigation and Co-ordination in the UK 2000-2004. Final report to the Department for Environment, Food and Rural Affairs. Pp 1-79. http://randd.defra.gov.uk/Document.aspx?Document=WP01011_8244_FRP.pdf
Collection of samples (type, preservation method)

A range of samples are routinely collected according to the method of Jepson *et al* (2005). 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;

- stored frozen at -20°C or -80°C;
- stored in 70% ethanol (parasites);

or in 10% buffered formalin (fixed samples)

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

The CSIP holds data on over 10000 cetaceans which were reported stranded around the UK between 1990 and 2010. In addition, detailed pathological data is also held on nearly 2900 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 (<http://www.nbn.org.uk/>).

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

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 (€8500) (Project ref: [SSFA/ASCOBANS/2010/2](#)). If successful, it is hoped that this will be the first step towards the creation of a central database on strandings and necropsies, encompassing ASCOBANS Parties and Range states.

A workshop part organized by Defra funded CSIP staff was held at the European Cetacean Society Conference in Cadiz on 19th March 2010 to discuss the ASCOBANS database proposal. Fifty three attendees from 11 different countries came to the workshop, presentations were delivered by representatives of stranding/necropsy networks in nine different countries. Outline fields for a putative database were agreed and three working groups were suggested to take forward further discussion on strandings data, necropsy data (causes of death) along with technical/database development. The IoZ authored report to the ASCOBANS Secretariat is due to be submitted in November 2011.

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
BELGIUM	
<i>Phocoena phocoena</i> (48)	Detailed data are not available yet. Total number of harbour porpoises, including stranded animals, dead animals found at sea, animals delivered by fishermen: 48

DENMARK	
Harbour porpoise (28 individuals)	3: Unknown, 25: bycaught
Fin whale	Stranded
Pilot whale	Unknown
Common dolphin	Unknown
FINLAND	
	None
FRANCE	
<i>Delphinus delphis</i>	75 necropsies
<i>Phocoena phocoena</i>	39
<i>Stenella coeruleoalba</i>	21
<i>Tursiops truncatus</i>	12
<i>Grampus griseus</i>	2
<i>Globicephala melas</i>	5
<i>Halichoerus grypus</i>	11
<i>Phoca vitulina</i>	4
<i>Phoca groenlandica</i>	1
<i>Ziphius cavirostris</i>	1
<i>Balaenoptera physalus</i>	1
<i>Megaptera noveanglia</i>	3
GERMANY	
Mecklenburg-Vorpommern: Phocoena phocoena: 23 (Jan.-Sep.) No necropsies in 2010 due to decay of animals found.	Recorded strandings and bycatch, only partially necropsied [Harder & Dähne, German Oceanographic Museum]
Lower Saxony: Phocoena phocoena: 35 No necropsies in 2010 due to decay of animals found.	Recorded strandings, only partially to be necropsied (necropsies are postponed) [Ramdohr, LAVES]
Schleswig-Holstein: Phocoena phocoena: 152 (until 15 Jan. 2011)	[Siebert, FTZ]
LITHUANIA	
No any observations have been done.	

NETHERLANDS	
Harbour porpoise	100 animals were necropsied. Of these cause of death was: 17% unknown, 18% emaciation, 11% starvation, 11% infectious disease, 6% other, 12% trauma and 25% by-catch.
POLAND	
None	
SWEDEN	
Harbour porpoise	Six probably by caught, and one starved
UNITED KINGDOM	
Harbour porpoise (<i>Phocoena phocoena</i> , n=68)	Bycatch (n=13) Starvation (n=10) Bottlenose Dolphin Attack (n=7) Pneumonia, Parasitic (n=7) Starvation (neonate) (n=5) Pneumonia, Parasitic and Bacterial (n=4) Generalised Bacterial Infection (n=4) Gastritis and/or Enteritis (n=3) Dystocia & Stillborn (n=3) Others (n=3) Physical Trauma (n=2) Live Stranding (n=2) Pneumonia, Bacterial (n=1) Pneumonia, Parasitic and Mycotic (n=1) (Meningo)encephalitis (n=1) Not Established (n=2)
Short-beaked common dolphin (<i>Delphinus delphis</i> , n=9)	Bycatch (n=3) (Meningo)encephalitis (n=2) Gastritis and/or Enteritis (n=2) Live Stranding (n=1) Others (n=1)
Minke whale (<i>Balaenoptera acutorostrata</i> , n=5)	Live Stranding (n=3) Entanglement (n=1) Starvation (n=1)
Risso's Dolphin (<i>Grampus griseus</i> , n=5)	Live Stranding (n=2) Bycatch (n=1) Dystocia & Stillborn (n=1) Starvation (neonate) (n=1)
White beaked dolphin (<i>Lagenorhynchus albirostris</i> , n=4)	Bycatch (n=1) Live Stranding (n=1) (Meningo)encephalitis (n=1) Starvation (neonate) (n=1)
Bottlenose dolphin (<i>Tursiops truncatus</i> , n=3)	Others (n=1) Not Established (n=2)
Striped dolphin	Live Stranding (n=1)

(<i>Stenella coeruleoalba</i> , n=3)	Starvation (n=1) Pneumonia, Bacterial (n=1)
Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i> , n=2)	Live Stranding (n=1) (Meningo)encephalitis (n=1)
Sperm whale (<i>Physeter catodon</i> , n=1)	Starvation (n=1)
Long-finned pilot whale (<i>Globicephala melas</i> , n=1)	Live Stranding (n=1)
Sowerby's beaked whale (<i>Mesoplodon bidens</i> , n=1)	Live Stranding (n=1)

5.2 Other relevant information on post-mortem / strandings schemes

BELGIUM

A web-based system to provide access to data and tissues is being further developed: BIOBANK.

De Winter, J.; De Cauwer, K.; Haelters, J.; Jacques, Th.; Jauniaux, T.; Scory, S. (2010). Biobank: An integrated system to collect and publish marine mammals information: in situ observations, necropsy results, tissue samples available for further scientific research, in: Fichaut, M. et al. (Ed.) (2010). International Marine Data and Information Systems Conference IMDIS 2010, 29-31 March 2010, Paris, France: Book of abstracts. pp. 58.

Relevant publications

Jauniaux, T.P., Brenez, C., Fretin, D., Godfroid, J., Haelters, J., Jacques, T., Kerckhof, F., Mast, J., Sarlet, M. & Coignoul, F.L., 2010. Brucella ceti infection in harbor porpoise (*Phocoena phocoena*). Emerging Infectious Diseases, December 2010.

DENMARK

None

FINLAND

None

FRANCE

None

GERMANY

Potential impacts of pingers (acoustic deterrent devices) in EU fisheries on harbour porpoises: Following the investigations of the BMVEL pilot project on morphology and histology of harbour porpoise ears, the aim of this study was to investigate potential anthropogenic noise impacts. Echolocation is the main sense in harbour porpoises and important for detection of food, predator avoidance, navigation and communication. Therefore, it is likely that pathological changes in the ears cause impairment of auditory function which subsequently contribute to the etiology of by-catches and strandings. In total, 42 ears from 21 harbour porpoises from the German and Danish North and Baltic Seas were decalcified with EDTA, embedded in celloidin and evaluated histologically for acoustic and other pathological changes after H&E staining. Data were compared with results from

continuative microbiological, histological, serological, parasitological and virological studies as well as detailed necropsy data of the total carcass and of computed tomography of the ear region. Immuno-histochemical and special staining techniques for the investigation of inflammatory and degenerative changes in paraffin-embedded ears were tested.

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

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

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

LITHUANIA

None

NETHERLANDS

Of those animals that were determined to die due to by-catch, the largest number was of juvenile males (27), followed by juvenile females (15) and adult males (4) and adult females (4). In 2010 a new category for cause of death was introduced, called "trauma". This includes animals with extensive damage to head or body. These animals show cuts with clear edges and it is unclear if these cuts were made pre or post mortem. The origin of these cuts are still not clear. Most of these animals were found from December 2008 to March 2009 and from January 2010 to March 2010.

In 2009, the North Sea Foundation started setting up a rapid alert system (RAS) for stranding events of porpoises. A plan of action was developed to increase information gathering on stranding events of dead harbour porpoises. In the event of a stranding event, Dutch police, researchers, pathologists, Ministry of Agriculture, Nature and Food Quality, and nature protection organisations, will work together to find the cause of the stranding event.

Reference:

Begeman, L., Gröne, A. en Wiersma, L. 2010. Postmortaal onderzoek van in Nederland gestrande Bruinvissen van december 2009 tot november 2010. Rapport 2010, Departement Pathobiologie, Faculteit Diergeneeskunde, Universiteit Utrecht.

POLAND

In 2010, 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 five cases of porpoises found onshore has been acquired so far.

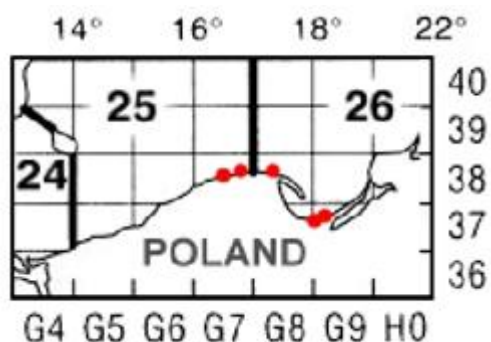


Table Data on time, location, length, sex and place of porpoise finding as well as the site of sample deposition.

Date	Length	Sex	Place of finding	Sample depositing
2010-05-23	147 cm	male	Kąty Rybackie	SMIOUG – skull and genetic material sampled
2010-06-16	141 cm	male	Lubiatowo	SMIOUG – skull and genetic material sampled
2010-06-28	140 cm	male	Orzechowo	SMIOUG – skull and genetic material sampled
2010-07-06	169 cm	female	Stegna	SMIOUG – skull and genetic material sampled
2010-12-02	110 cm	female	Karwia	SMIOUG – a whole specimen deposited in the refrigerator

SWEDEN

None

UNITED KINGDOM

CSIP Annual Report to Defra for the period 1st January-31st December 2009

(published in 2010,

http://randd.defra.gov.uk/Document.aspx?Document=WC0601_9167_ANN.pdf)

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

BELGIUM

None

DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
An Action Plan for protection of the harbor porpoise in Lithuanian Baltic Sea area is under preparation. It has to be adopted in the end of a year or in the beginning of 2012. The implementation of a Plan should start in 2012.
NETHERLANDS
Couperus: Minor changes in EU regulation 812/2004 are planned. Main new item is the requirement to report in a standard format. Harbour Porpoise species conservation plan In October 2010 Kees Camphuysen (NIOZ) and Marije Siemensma (Marine Science & Communication) started writing a Harbour Porpoise species conservation commissioned by the Dutch Ministry of Economics, Agriculture and Innovation (EL&I). The aim of this conservation plan is to improving or at least maintaining 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 seems more appropriate. An important component of this plan was providing 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. The conservation plan will be finalized in June 2011.
POLAND
Non new legal regulation on cetacean protection was introduced
SWEDEN
During 2010 SEPA started developing national guidelines for underwater noise and marine mammals. The guidelines do not cover noise from vessels, but will be useful during constructions of windparks, pipelines, blastings etc. In 2009, 3 MPA :s were established along the west coast of Sweden applying restrictions regarding fisheries. One of these, in the south of Kattegat, is a large area 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. In 2010 another 3 MPA:s with fishery restrictions will be established in the Baltic Sea. In 2009 Sweden's first marine national park was established in the Koster Archipelago in Skagerak. Certain regulations will apply in the use of leisure boats as well as fisheries.

UNITED KINGDOM

As of 1st April 2010, the Marine Management Organisation (MMO) became responsible for certain marine nature conservation enforcement and management in the UK. This includes the issuing of Marine Mammal Mitigation Protocols (MMMPS), put in place to prevent harm to marine mammals. Compliance inspections take place to ensure required projects adhere to their MMMPS.

The MMO also has responsibility for implementing and enforcing bylaws (under section 129 of the Marine and Coastal Access Act 2009) and other management measures in current and new Marine Protected Areas when considered necessary, including those that will include small cetaceans as a designated feature.

Training in these new enforcement responsibilities has been given to coastal officers and the Royal Navy Fisheries Protection Squadron, who carry out enforcement duties on the MMOS behalf.

E. INFORMATION AND EDUCATION

7.1 Public Awareness and Education

BELGIUM

Exhibition on whales and dolphins

The exhibition "Whales and dolphins" in the Museum for Natural Sciences, Brussels, ended in August 2010. From October 2009 till August 2010 there have been 120.000 visitors. In September 2010 part of the exhibition moved to the Bird Rehabilitation Center in Ostend, where it can be visited for free.

Necropsy workshop

An international necropsy workshop was organized (4rd *Cetacean Necropsy Workshop: special issue on cetaceans inner ear, including beaked whales*) at the university of Liège (2-3 September 2010). 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.

Publication in National Geographic Magazine

MUMM contributed to an article about harbour porpoises in the Dutch/Belgian edition of National Geographic Magazine, which paid attention to bycatch and noise problems.

Vermue, R., 2011. De bruinvis is terug. National Geographic Magazine, Dutch/Belgian edition, December 2010.

North Sea Pelagics

During 2010 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 Ostend Pelagics were reported to MUMM.

Web based initiatives

Two initiatives towards the public to record, report and distribute marine mammal sightings continue:

www.waarnemingen.be is an initiative of *Natuurpunt Studie* vzw and *Stichting Natuurinformatie* that collects, from volunteers, records of observations of species of

different taxonomic groups, including cetaceans. For 2010 observations of in total 422 porpoises were reported to this site, the highest numbers during March and April (233 and 107 respectively). The solitary bottlenose dolphin that stayed off the Belgian coast was reported 68 times. Three sightings of groups of white-beaked dolphins were reported (6, 4 and 3 individuals).

www.zeezoogdieren.org is an ongoing initiative originating from *Natuurpunt Antwerpen-Noord* vzw that gives ad hoc information of noteworthy facts of marine mammals from Dutch and Belgian waters.

Besides that, MUMM reports strandings and selected sighting records online on www.mumm.ac.be.

DENMARK

Fjord&Bælt is receiving some 55-60,000 guests every year. The exhibitions and the educational programs at the center are focused on conservation of the environment, with special emphasis on marine mammals. The center houses four harbour porpoises in a semi-natural pool.

FINLAND

Finland has continued the harbour porpoise sighting campaign and received information of seven possible sightings of totally 10-12 animals in year 2011.

The Ministry of the Environment and 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

Public conferences (Oceanopolis-Brest and CRMM/ULR)

National stranding network: training for volunteers and national meeting (CRMM/ULR)

Observer training in the frame of fishing observation scheme, council regulation 812/04 (CRMM/ULR)

Annual Symposium of French stranding network, annual stranding report, research with biological samples from stranding, network scheme animation.

Regional stranding network: training for volunteers and annual meeting (LEMM/Océanopolis)

New educational workshops on cetaceans implemented for schools by the Education Department/ Oceanopolis

A marine mammal necropsy workshop is organized annually by the Department of Veterinary Pathology (University of Liege), the Laboratory of Applied Bioacoustics LAB (Universitat Politècnica de Catalunya) and the Marine Mammal Research Center (University of La Rochelle – CRMM/ULR). The aim of the workshop is to improve the participants' proficiency in (1) dissection and sampling procedures on marine mammals mostly cetaceans, as well as their anatomy and pathology; (2) skull morphology, extraction and fixation of the cetacean inner ear. 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. In itinerant version circulate in Europe.

GERMANY

Results of the Weser research project (see section 4.1) were presented at the ECS conference and published on the GRD website and in their members' magazine. Moreover,

a publication entitled "The Return of the Harbour Porpoise, *Phocoena phocoena*, to the Weser River - Results from Opportunistic Sighting Surveys and Passive Acoustic Monitoring (2007 – 2010)" is under preparation. [Koschinski, GRD]

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

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

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

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

LITHUANIA

International Harbor Porpoise Day was celebrated for the 8th time at the Lithuanian Sea Museum. Every year the specialists of Lithuanian Sea Museum look for a way to improve a public awareness about species harbor porpoise. This year was the first one when Lithuanian Sea Museum decided to commemorate this day in an unusual way. There were invited over then 1000 students from different Lithuanian schools to make a contour of harbor porpoise by using a "live circuit". There was made a real picture and video from the sky. This action imposed a huge interest of the public. Many articles in a newspaper and a website were published. The video is able to be downloaded from the following internet address

http://www.youtube.com/watch?v=3vWQdBiwxKE&feature=player_embedded#at=14 and picture - <http://g.diena.lt/01/50/250772.jpg>.

NETHERLANDS

SOS Dolfijn, Rugvin foundation and North Sea Foundation published a leaflet on the Harbour Porpoise in the North Sea.

In cooperation with ASCOBANS, SOS Dolfijn made a series of posters on cetaceans, that is exhibited around the rehab centre in Harderwijk.

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. In December 2010 the EUCC announced its exhibition centre on the Pier of Scheveningen, The Hague (Kust&Zee x-Pierience) which officially opened in March 2011

POLAND

Communication and delivery of message on harbour porpoise as a species in need for special protection in the Baltic Sea was continued in 2010. The awareness raising campaign was co-funded by the National Fund for Environmental Protection and Water Management, the Voievodeship Fund for Environmental Protection and Water Management in Gdańsk and the EU 5th Priority Axis of the „Infrastructure and Environment” Operational Programme and the LOTOS Group as well as from the budget of the Marine Station IOUG and the Gdańsk University Development Fund

On October 14 2010 a meeting was held at the Institute of Oceanography of the Gdańsk University within the framework of the SAMBAH Project. The meeting was organized by the Chief Inspectorate of Environmental Protection, the Department of Monitoring and Environmental Information to provide information on the Project „*Static acoustic monitoring of the Baltic harbour porpoises – SAMBAH*”. The meeting was open above all to the sea users and decisions makers as well as to the other institutions and organisations which may encounter monitoring devices in the sea in the framework of their activity; are in charge of or engaged in nature conservation as well as to the media, which have been invited to disseminate the information on the Project at the society level. Representatives of all levels amongst the above mentioned stakeholders were invited to participate and, what is more important, attended the abovementioned meeting. They have been given advice on the harbour porpoise protection status, its biology and threats, relevant monitoring commitments, on its past and contemporary situation, protective tasks undertaken up to now, and finally, on the SAMBAH Project, its implementation in Poland including communication and education. The question of porpoise protection against bycatch was also discussed; however, the discussion was dedicated above all to the means for communicating information on the Project to those who use the sea, including especially the information on the location of hydroacoustic devices. This fact provides a proof of the existing acceptance and willingness to assist in the implementation of the SAMBAH Project. The attendees of the meeting were given, among other things, the list of location of hydroacoustic devices, handouts of all presentations and a movie on harbour porpoise entitled: „Baltic Sea Porpoises” on HD STUDIO by „AGA”-G. Abramowicz SMIOUG.

In 2010 the awareness raising campaign was continued on the porpoise protection under the joint Project of the WWF-Poland and the Marine Station IOUG at Hel under the name: Support for Restoration and Protection of Baltic Mammals in Poland”. On July 8 2010 a happening was held at the courtyard of National Museum in Warsaw dedicated to informing the inhabitants of the capital that porpoises live in the Baltic. Actress Joanna Jabłczyński, popular among young people, was appointed to be the Polish ambassador of the Baltic porpoises. The event was organized by the WWF-Poland. In line with the Project programme its website www.ssakibaltyckie.wwf.pl was considerably extended. The dissemination of the pocket brochure entitled “A blue manual” was continued. The brochure provides information on how to save marine mammals. Its electronic version is disseminated via Internet at the following address: www.ssakibaltyckie.wwf.pl/poradnik.pdf .

In order to communicate knowledge on porpoise distribution and to improve the reporting system on observation of these animals along the whole Polish Baltic coast, 80 information boards were placed at the main entrances to the beaches.

Taking advantage of the funds provided by the National Fund for Environmental Protection

and Water Management and owing to a contract signed with the Institute of Environmental Protection with the support of the Ministry of Environment, 5 000 flyers were produced and disseminated concerning the ASCOBANS Agreement, according to guidelines provided by the Secretariat of the Agreement. Moreover, several hundreds of school notebooks bearing the porpoise Picture and the ASCOBANS logo were developed and printed.

SWEDEN

The day of the harbour porpoise is celebrated every year through exhibitions and presentations at Havets Hus in Lysekil.

Stockholm Museum of Natural History (SMNH) has a web site for reporting live animals. During 2010 at least 112 reports were submitted including at least 246 individuals. Most of the reports come from the Swedish west coast. The web page also includes photos, and a couple of very interesting films of porpoises playing around a small boat.

UNITED KINGDOM

A Defra funded CSIP team conducted a necropsy workshop in Athlone Ireland on 15th December which had been organised by the Irish Whale and Dolphin Group (IWDG, <http://www.iwdg.ie/>). The CSIP team demonstrated necropsies on three common dolphins and one striped dolphin to over 15 vets from around Ireland along with several staff from IWDG. IWDG aimed to use the necropsy workshop to train interested vets in cetacean necropsy techniques, with a view to increasing potential coverage around Ireland for prospective necropsies.

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

BELGIUM
None
DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
None
NETHERLANDS
None

POLAND
<p>The Regulation WE 812/2004 introduced a ban on using drift nets (gillnets) which are the main tools for salmon fishing. From the conversations with fishermen it can be inferred that their negative approach to the above regulation is projected on the goals of the ASCOBANS Agreement and the Jastarnia Plan, due to fact that the EC has not submitted the actual results of study on deleterious effects of using drift nets upon the porpoise population. The fishermen understand the necessity for porpoise protection, but the technical means proposed in the abovementioned regulation 812/2004 do not favour effective protection of the Baltic porpoises due to faulty diagnosis of the bycatch causes and due to disregarding of the regional conditions (the question of drift nets) and a faulty choice of technical means. Eventual imposing further means for porpoise protection which would make commercial fishing difficult or impossible should be introduced only after consideration of actual and reliable scientific data. The work to revise the regulation 812/2004 as well as further activities dedicated to porpoise protection shall be related to the results of the SAMBAH Project.</p>
SWEDEN
None
UNITED KINGDOM
None

OTHER INFORMATION

GERMANY
<p>Germany was in particular active to reach a Russian accession to CMS and relevant Agreements including ASCOBANS. Currently the relevant Russian Natural Resources Ministry is in coordination with other Public Bodies concerning a CMS accession as a first step and hopes that decisions might be possible in the first months of 2011. Germany organises an annual meeting with the Kaliningrad oblast on environmental issues: called "Kaliningrader Umweltage". During the last meeting within the German delegation was planned to dedicate attention of the next meeting in autumn 2011 to Harbour porpoises in the Baltic Sea in order to reach a participation of the Oblast Kaliningrad (involving may be Polish scientists of the Baltic Sea region too). Furthermore, Germany facilitated secretariat contacts with Norway to catalyze a potential next AC meeting in Norway in 2012 (or later) as a first step in the direction of a Norwegian accession. [Schall, BMU]</p> <p><u>Financial support in 2011</u></p> <p>The annual financial "Voluntary Contribution" of € 25,600.00 was primarily used to give support to the small project fund (after a decision of the AC not to co-finance a fishery leaflet, for which the German support was originally foreseen).</p> <p>Beyond this regular annual "Voluntary Contribution", Germany had offered in the 2010 AC meeting to cover 50 % of the costs of a G 4 post in 2011 to support the work of the secretariat, which should be prolonged in 2012 by other free financial means of the current ASCOBANS budget. [Schall, BMU]</p>

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

Coordinating Authority or Appointed Member of Advisory Committee
BELGIUM
Contact person in the coordinating authority is Sophie Mirgaux (see below)
DENMARK
FINLAND
FRANCE
GERMANY
LITHUANIA
NETHERLANDS
POLAND
SWEDEN
UNITED KINGDOM

List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details
BELGIUM
<p>FOD Public Health, Food Safety and Environment, DG Environment, Marine Environment Victor Hortaplein 40 bus 10 B-1060 Brussels, Belgium Contact: sophie.mirgaux@health.fgov.be</p> <p>Royal Belgian Institute of Natural Sciences (RBINS) Vautierstraat 29 1000 Brussels, Belgium</p>

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GERMANY

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

Projekträger Jülich (PTJ), Department for Wind Energy, Forschungszentrum Jülich GmbH, Wilhelm-Johnen-Straße, D-52425 Jülich

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

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

Biola, Gotenstraße 4, D-20097 Hamburg

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

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

Ostsee Info-Center Eckernförde (OIC), Jungfernstieg 110, D-24340 Eckernförde

Active Region Ostseeküste - fisheries working group, Ellernbrook, D-24235 Stein

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NETHERLANDS
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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
<p>Investigations of methods to reduce bycatch WAKO II</p> <p>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.</p> <p>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.</p> <p>More efforts are needed though to get a clearer picture here and our positive experiences</p>

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
<p>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.</p> <p>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.</p>
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
<p>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.</p> <p>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</p>

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 sent 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 tons 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 commitment 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/rybołówtwomorskie (<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, Schwana; 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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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>

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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.cefass.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.

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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.

Wales
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.
Jersey
Ramsar Management Plans prepared (one published; three in final draft) highlighting importance of cetaceans. Monitoring strategy includes monitoring on cetacean activity
3.1 Sources of GIS data of the boundaries (and zoning, if applicable)
BELGIUM
DENMARK
Contact: Signe Sveegaard, <i>sign@dmu.dk</i>
FINLAND
FRANCE
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 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
GERMANY
LITHUANIA

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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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 Classificator 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.

Temporal and life history related trends of perfluorochemicals in porpoises have been investigated: Galatius, A., Dietz, R., Rigét, F. F., Sonne, C., Kinze, C. C., Lockyer, C., Bossi, R. 2011. Temporal and life history related trends of perfluorochemicals in harbor porpoises from the Danish North Sea. Marine Pollution Bulletin 62(7), 1476-1483. • Research into a detection function for static acoustic dataloggers: Kyhn, L. A., Tougaard, J., Thomas, L., Duve, L. R., Stenback, J., Amundin, M., Desportes, G. 2012. From echolocation clicks to animal density – acoustic sampling of harbour porpoises with static dataloggers. Journal of the Acoustical Society of America, 131(1), 550-560.

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:

Scheidat, M., Tougaard, J., Brasseur, S., Carstensen, J., van Polanen Petel, T., Teilmann, J., Reijnders, P. 2011. Harbour porpoises (*Phocoena phocoena*) and wind farms: a case study in the Dutch North Sea. Environmental Research Letters, 6(2), 025102.

Thyroid and stress hormones in free-ranging and captive porpoises: Siebert, U., Pozniak, B., Hansen, Kirstin A., Nordstrom, G., Teilmann, J., van Elk, Niels, Vossen, A., Dietz, R. 2011. Investigations of Thyroid and Stress Hormones in Free-Ranging and Captive Harbor Porpoises (*Phocoena phocoena*): A Pilot Study. Aquatic Mammals 37(4), 443-453.

Life history parameters of white-beaked dolphins: Galatius, A., Jansen, O. E., Kinze, C. C. 2012. Parameters of growth and reproduction of white-beaked dolphins (*Lagenorhynchus albirostris*) from the North Sea. Marine Mammal Science, in press.

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.

Inter-specific variation of porpoise skull shape and ontogeny: Galatius, A., Berta, A., Frandsen, M., Schou, M., Goodall, R., Natalie P. 2011. Interspecific variation of ontogeny and skull shape among porpoises (*Phocoenidae*). Journal of Morphology 272(2), 136-148.

Study of how porpoises regulate their hearing during echolocation: Linnenschmidt, M., Beedholm, K., Wahlberg, M., Kristensen, J. H., Nachtigall, P. E. 2012. Keeping returns optimal: gain control elicited by dynamic hearing thresholds in a harbour porpoise. Proceedings of the Royal Society B, doi 10.1098/rspb.2011.2465.

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., Stolz, 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: agj@dmu.dk • The Fisheries and Maritime Museum, Tarphagevej 2, 6710 Esbjerg V, Denmark. Phone +4576122000, email: lfj@fimus.dk
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)
<p>Standardized protocol derived from ECS necropsy workshop 2005 (Jauniaux, T. Beans, C; and Dabin W. 2005. Stranding, Necropsy and sampling: Collection data, sampling level and techniques)</p>

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://cmm.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>
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)
MV: The German Oceanographic Museum is collecting information about incidental strandings and sightings (see at http://www.meeresmuseum.de/wissenschaft.html)
LITHUANIA
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)

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.

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		Nine stranded animals, at least one probably by caught were found in 2011			
UNITED KINGDOM					
Harbour porpoise <i>(Phocoena phocoena, n=74)</i>		<p>Pneumonia, Parasitic (n=13)</p> <p>Starvation (n=13)</p> <p>Physical Trauma (n=8)</p> <p>Bycatch (n=7)</p> <p>Bottlenose Dolphin Attack (n=7)</p> <p>Starvation (neonate) (n=5)</p> <p>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</p> <p>(<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</p> <p>(<i>Globicephala melas</i>, n=18)</p>	<p>Live Stranding (n=17)</p> <p>Generalised Bacterial Infection (n=1)</p>
<p>Striped dolphin</p> <p>(<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</p> <p>(<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</p> <p>(<i>Lagenorhynchus albirostris</i>, n=5)</p>	<p>Starvation (n=3)</p> <p>Live Stranding (n=2)</p>
<p>Atlantic white-sided dolphin</p> <p>(<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)
<p>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</p>	

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 (WDSCS), 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 Consulentenschap 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