Fifteenth Compilation of Annual National Reports to ASCOBANS

2010



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TABLE OF CONTENTS

Т	able o	of Contents	3
GE	NERA	L INFORMATION	4
S	umma	ary of Party Details	4
	Coor	dinating Authority or Appointed Member of Advisory Committee	6
		of national authorities, organizations, research centres and rescue centres active eld of study and conservation of cetaceans, including contact details	
CO	NSER	ASURES / ACTIONS TOWARDS MEETING THE OBJECTIVES OF THE VATION AND MANAGEMENT PLAN AND THE RESOLUTIONS OF THE SOF PARTIES	11
Α.		ITAT CONSERVATION AND MANAGEMENT	
1		ect Interaction with Fisheries	
	1.1	Investigations of methods to reduce bycatch	
	1.2	Implementation of methods to reduce bycatch	
	1.3 source	Other relevant information, including bycatch information from opportunistic ces.	
2	Re	duction of disturbance	20
	2.1	Anthropogenic Noise	20
	2.2	Ship Strike Incidents	26
	2.3	Major Incidents Affecting Significant Numbers* of Cetaceans	27
	2.4	Pollution and Hazardous Substances	28
	2.5	Other Forms of Disturbance	30
3	Ma	arine Protected Areas for Small Cetaceans	32
	3.1	Sources of GIS data of the boundaries (and zoning, if applicable)	34
В.	SUR	VEYS AND RESEARCH	35
	4.1	Overview of Research on Abundance, Distribution and Population Structure	35
	4.2	New Technological Developments	41
	4.3	Other Relevant Research	42
C.	USE	OF BY-CATCHES AND STRANDINGS	44
5	Po	st-Mortem Research Schemes	44
	5.1	Number of Necropsies Carried out in Reporting Period:	52
	5.2	Other relevant information on post-mortem / strandings schemes	55
D.	LEG	SLATION	57
	6.1	Relevant New Legislation, Regulations and Guidelines	57
E.	INFC	RMATION AND EDUCATION	59
	7.1	Public Awareness and Education	59
РΟ	SSIBL	E DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT	63
ОТ	шер і	NEODMATION	61

GENERAL INFORMATION

SUMMARY OF PARTY DETAILS

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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.

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Lithuania

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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: <u>Jochen.Depestele@ilvo.vlaanderen.be</u>; website: <u>www.ilvo.vlaanderen.be/wako</u>.

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 (CNPMEM: 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 VIIe 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 µPa, and sound measurements at various distances where carried out. Sighting rates of porpoises significantly declined within the whole 1 km Recordings of porpoise echolocation signals by C-PODs were observation radius. 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 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 by catch estimates available for pelagic trawl fisheries and set nets observed under the Reg 812/2004 (national report delivered in 2010)

Metier	Zone de	Principale s espèces	Espèces de cétacés dans les	Nombr e d'inci-	Nombre d'individus capturés par espèce		Taux de captures accidentelles		Capture s	CV
	pêche	cibles	captures	dents	avec pingers	sans pingers	avec ping ers	sans pingers	totales esti- mées	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11
GNS>RVII I;>=15m	VIII	hake	Stenella coeruleoalba	2		3		(0.033)	(800) ???	0.6 8
GTR&GNS VIII; <15m	VIII	sole, baudroie	Phocoena phocoena	4		4		(0.0172; 0.0195)	(600- 800) 300	0.6 4
PTM; hiver; tous navires	VII	bar	Delphinus delphis	4		6		0.0458	20	0.6 2
PTM; hiver; tous navires	VIII	bar	Delphinus delphis	6		21		0.4773	(400) 300-	0.8 9

							400	
PTM; été; tous navires	VII	bar	Delphinus delphis	1	2	0.0253	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

Regulation 812/2004.

In addition, please attach or provide link to your country's Report under EC **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

SWEDEN

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 IIId and using the OTM or GNS nets operating east of 24 subarea ICES. Observations were conducted by the trained Sea Fisheries Institute employees.

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.

On no one out of the 73 monitored fishing days neither porpoise nor any other marine mammal was recorded in the nets.

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.

On no occasion the presence of marine mammal has been recorded.

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:

BIP/informacjebranzowe/rybolowstwo/rybolowstwomorskie(http://www.bip.minrol.gov.pl/Desk topDefault.aspx?TabOrgId=1703&LangId=0).

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.

None
UNITED KINGDOM
None

2 REDUCTION OF DISTURBANCE

2.1 Anthropogenic Noise

BELGIUM

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:

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.

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.

Chapter 10: Haelters, J., Kerckhof, F., Jacques, T.G. & Degraer, S., 2010. Spatio-temporal patterns of the harbour porpoise Phocoena phocoena in the Belgian part of the North Sea; p. 153-163.

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.

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.

DENMARK

None

FINLAND

None

FRANCE

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.

Please reference and briefly summarise any studies undertaken

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.

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.

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

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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 compilated. [Schall, BMU]

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

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

In 2009, a total of12 offshore wind turbines have been constructed at the first German offshore wind farm, the testfield "alpha ventus". The noise emitted during pile driving was monitored as determined in the licensing conditions set by the Federal Maritime and Hydrographic Agency (BSH). The measurements of underwater sound were conducted according to the Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK3). For the description of the measurement requirements according to StUK see under http://www.bsh.de/en/Products/Books/Standard/index.jsp. Additional underwater sound measurements were conducted during pile driving for the testfield "alpha ventus" in the framework of a research project on ecological aspects of wind farms, so called "StUKplus" coordinated by the Federal Maritime and Hydrographic Agency (BSH) and funded by the Federal Ministry of the Environment. More information may be under: found German 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 German 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. information about licensing conditions, noise monitoring and mitigation measures applied in ventus" found under: "alpha 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 the construction 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, humback 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	29.04– 09.05.2010	SSS, SBP
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.	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

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.

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.

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.

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.

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

LITHUANIA

None

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)	
BELGI	UM						
None r	eported with s	small cetacea	ıns (1 shi	p strike incider	nt with a commor	seal occurred)	
DENM	ARK						
None							
FINLA	ND						
None							
FRANC	CE						
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	nale spine res determined 640W, -		Brittany48.418	crmm@univ-Ir.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.							
GERM	ANY						
None							

NETHERLANDS						
23 June 2010 Harbour porpoise Tailstock broken Tailstock broken Not immediately, presumably found dead later Unknown, ship strike reported by skipper Eastern Scheldt, Delta Area Marije Siemensma						
POLAN	ND					
No coll	ision was reg	istered in th	e Polish EEZ of	cetaceans wi	th the water craf	ft.
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		<u> </u>							
None	None								
DENMARK	DENMARK								
None									
FINLAND									
None									
FRANCE									
None									
GERMAN	(
None									
LITHUANI	A								
There were	en't any incidents reco	orded in Lith	uanian Sea zone.						
NETHERL	ANDS								
None									
POLAND	POLAND								
None									
SWEDEN									

No major incidents to report in Swedish waters

UNITED KINGDOM

None

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

^{*}Two or more animals

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 UKstranded 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 ΣBDE 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 (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. Natuur.Focus 9(4): 174-175. (in Dutch).

DENMARK
None
FINLAND
None
FRANCE
None
GERMANY
None
LITHUANIA
No new forms of disturbance have been found.

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.

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.

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/lmages/Final%20report%20Masterplan%20Ecological%20effects%20Offshore%20wind%2011052010 tcm14-4508.pdf)

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

References:

Polanen Petel T van, Geelhoed S & Meesters E, 2010. Harbour porpoise occurrence in relation to the Prinses Amaliawindpark. IMARES Report number C177/10.

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.

POLAND

The increased use has been observed of speedboats and water scooters in the Polish coastal zone.

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.

SWEDEN

Nothing to report

UNITED KINGDOM

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.

3 MARINE PROTECTED AREAS FOR SMALL CETACEANS

BELGIUM

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).

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).

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.

DENMARK

Advice on NATURA 2000 areas in terms of how porpoises use the inner Danish waters were given by NERI-AU and others previously.

FINLAND

None

FRANCE

Between October 2008 and September 2010, 96 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 38, both on the Channel and Atlantic coast.

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.

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:

- 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)

National Agency for the Marine Protected Areas (Brest): work in progress for the creation of others MPA, through a national strategy.

GERMANY

None

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 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 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 2010. 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. The conservation target will probably be formulated as follows: "Maintain the extent and quality of habitat in order to maintain the population".

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

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.

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.

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. 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.

UNITED KINGDOM

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.

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

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

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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

GERMANY

None

LITHUANIA

None

NETHERLANDS

More information on the marine Natura2000 sites in the Netherlands can be obtained at: http://www.noordzeenatura2000.nl/

POLAND

Detailed borders of both areas are available at the General Directorate of Environmental Protection in Warsaw, PI (www.gdos.gov.pl/en/kontakty). They are also displayed on the website: http://natura2000.gdos.gov.pl/natura2000/en/jednostki.php.

SWEDEN

None

UNITED KINGDOM

 $\underline{\text{http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030355}}$

http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030363

http://www.incc.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

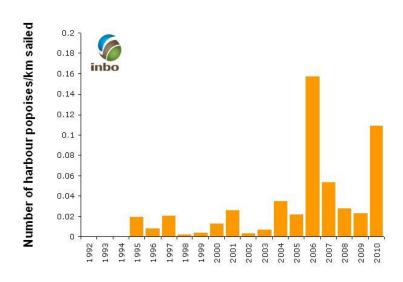
BELGIUM

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 recurres annually. Moreover the study highlighted that, despite the dramatic decline of the population, the harbor porpoise still occurs in the entire German Baltic Sea.

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

Since 2009, the C-POD, the digital successor of the T-POD, replaces older click detectors. Future monitoring projects such as the currently launched SAMBAH (Static Acoustic Monitoring of the BAltic 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 (AUTEC) 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 (Lagenorhynchusacutus), bottlenose dolphin (Tursiops truncatus), short-beaked common dolphin, striped dolphin (Stenellacoeruleoalba), 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

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

- a) Satellite tags attached to 6 harbour porpoises in inner Danish waters
- b) Biopsy samples were also taken on those six harbour porpoises.
- c) 25 harbour porpoises bycaught in inner Danish waters were dissected and tissue samples taken.

Please contact Jonas Teilmann, NERI-AU (<u>ite@dmu.dk</u>) for more information.

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

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

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

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

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

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

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

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

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 undertaken 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 procedures d'autopsie. Annales de medicine 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

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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 end techniques)

Collection of samples (type, preservation method)

Biodemographics samples: gonads (formalin) and teeth (frozen)

Diet and feeding ecology: stomach contains (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 16776 stranding recorded with 3188 individuals sampled

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

http://crmm.univ-lr.fr/ with stranding maps

GERMANY

Contact details of research institutions / focal point

Lower Saxony (LS): LAVES-Institute for Fish & Fishery Products Schleusenstr. 1, D-27472 Cuxhaven [Dr S. Ramdohr]

Schleswig-Holstein (SH): FTZ, Werftstr. 6, D-25761 Büsum [PD Dr. Ursula Siebert]

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

LS: Basic biological and anatomical data were collected and registered so far. Necropsy is performed occasionally.

SH: Post mortem examinations were performed according to the Proceedings of the First ECS Workshop on Cetacean Pathology (Kuiken and Hartmann, 1993). Measurements were taken in metric system.

Collection of samples (type, preservation method)

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

SH: All organ systems were examined macroscopically and samples of lesions and different organ systems, including lungs, trachea, stomach (1st, 2nd, and 4th compartment), intestine, esophagus, liver, pancreas, thyroid gland, adrenal gland, kidney, urinary bladder, testis, uterus, ovary, spleen, thymus, pulmonary and intestinal lymph nodes, retropharyngeal lymph

nodes, heart, aorta, skeletal muscles, rete mirabilis of the intercostal musculature, skin, blubber, brain, spinal cord, eye, bone, bone marrow, and tissue of the aural peribullar cavity, blood, urine etc. Formalin, alcohol, other special fixation, frozen at -20-30°C or 70-80°C, OCT etc.

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

LS: Data were collected and registered for administrative purpose so far. Scientific analysis is postponed.

SH: MySql, Postgresql, Access, Excel

Between 1990 and 2010 the following number of data sets has been collected per species

(data recorded until 15.01.11): Phocoena phocoena: 2799

Delphinus delphis: 6

Lagenorhynchus albirostris: 26 Lagenorhynchus acutus: 1 Stenella caeruleoalba: 1 Delphinapterus leucas: 1 Delphinapterus ampullatus: 1 Physeter macrocephalus: 6 Balaenoptera acutorostrata: 6 Balaenoptera physalus:6 Globicephala melaena: 3 Tursiops truncatus: 1 Mesoplodon bidens: 1

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

LS: Collecting information about incidental strandings and sightings by-chance is continued (see at http://www.wattenmeernationalpark.de/nds)

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

LITHUANIA Contact details of research institutions / focal point None Methodology used (reference, e.g. publication, protocol)

Collection of samples (type, preservation method)

None

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)

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)

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.

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.

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

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 performer 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)

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.

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:

- -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.

The base contains 118 reports on porpoise bycatch or stranding onshore, and 16 reports on other species o Data have been entered into the standard Access database since 1988. There is no on-line access to this base.

The base contains 118 reports on porpoise bycatch or stranding onshore, and 16 reports on other species of small cetaceans including: Stenella coeruleoalba, Lagenorhynchus albirostris, Lagenorhynchus acutus and Physeter catodon.f small cetaceans including: Stenella coeruleoalba, Lagenorhynchus albirostris, Lagenorhynchus acutus and Physeter catodon.

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 *et al* (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 loZ 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: <u>SSFA/ASCOBANS/2010/2</u>). 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	
	Detailed data are not available yet.
Phocoena phocoena (48)	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	
Delphinus delphis	75 necropsies
Phocoena phocoena	39
Stenella coeruleoalba	21
Tursiops truncatus	12
Grampus griseus	2
Globicephala melas	5
Halichoerus grypus	11
Phoca vitulina	4
Phoca groenlandica	1
Ziphius cavirostris	1
Balaenoptera physalus	1
Megaptera noveanglia	3
GERMANY	
Mecklenburg-Vorpommern: Phocoena phocoena: 23 (JanSep.) 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 (Balaenoptera acutorostrata, 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 (Lagenorhynchus albirostris, 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)

(Stenella coeruleoalba, n=3)	Starvation (n=1) Pneumonia, Bacterial (n=1)
Atlantic white-sided dolphin (Lagenorhynchus acutus, n=2)	Live Stranding (n=1) (Meningo)encephalitis (n=1)
Sperm whale (Physeter catodon, n=1)	Starvation (n=1)
Long-finned pilot whale (Globicephala melas, n=1)	Live Stranding (n=1)
Sowerby's beaked whale (Mesoplodon bidens, 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 Infectioues Diseases, December 2010.

DENMA	٩RK
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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 immunosuppression, 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). ISiebert, FTZI

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.

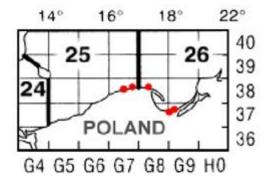


Table Data on time, location, length, sex and place of porpoise finding as well as the site of sample deposition.

Date	Length	Sex	Place of finding	Sample depositing
2010-05-23	147 cm	male	Kąty Rybackie	SMIOUG – scul and genetic material sampled
2010-06-16	141 cm	male	Lubiatowo	SMIOUG – scull and genetic material sa pled
2010-06-28	140 cm	male	Orzechowo	SMIOUG – scull and genetic mat rial sampled
2010-07-06	169 cm	femal	Stegna	SMIOUG – scull 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

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

implementation of a Plan should start in 2012.

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. On 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 Archopelagio in Skagerakk. 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).

<u>www.zeezoogdieren.org</u> 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 seminatural 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 STDIO by "AGA"-G. Abramowicz SMIOUG.

In 2010 the awarenes 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 individulas. 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

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.

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None

UNITED KINGDOM

None

OTHER INFORMATION

GERMANY

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]

Financial support in 2011

The annual financial "Voluntary Contribution" of \in 25,600.00 was primarily used to give support to the small project fund (after a decision of the AC not to co-finance a fishery leaflet, for which the German support was originally foreseen).

Beyond this regular annual "Voluntary Contribution", Germany had offered in the 2010 AC meeting to cover 50 % of the costs of a G 4 post in 2011 to support the work of the secretariat, which should be prolongated in 2012 by other free financial means of the current ASCOBANS budget. [Schall, BMU]