

Agenda Item 13

National Reporting

Document 13.g rev.1

**2012 Annual National Report
Netherlands**

Action Requested

- Take note
- Comment

Submitted by

Netherlands



**NOTE:
DELEGATES ARE KINDLY REMINDED TO BRING THEIR OWN COPIES OF DOCUMENTS
TO THE MEETING**

2012 ASCOBANS Annual National Reports

This format for the ASCOBANS Annual National Reports was endorsed by the 6th Meeting of the Parties in 2009. Reports are due to be submitted to the Secretariat by 31 March of each year.

Parties are requested to use this report to provide NEW information on measures taken or actions towards meeting the objectives of the Conservation and Management Plan and the Resolutions of the Meeting of the Parties.

The 7th Meeting of the Parties in 2012 agreed to move to online reporting with immediate effect. In order to benefit fully from the opportunities for synergies among CMS Family treaties afforded by this tool, Parties decided that a revised national report format be developed by a small working group assisted by the Secretariat for consideration by the Advisory Committee in preparation for the 8th Meeting of the Parties. While retaining the questions related only to ASCOBANS, it should align more closely to the format used in CMS, AEWA and EUROBATS.

General Information

Name of Party

> The Netherlands

Report submitted by

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Changes

Changes in Coordinating Authority or appointed Member of the Advisory Committee

> Jeroen Vis (Dutch Ministry of Economic Affairs) is taking the place of Folchert v. Dijken

List of National Institutions

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

> Ministry of EZ (Dutch Ministry of Economic Affairs); P.O.Box 20401, 2500 EK The Hague, The Netherlands.

Email contact: g.a.j.vis@minez.nl

> Ministerie of I&M (Infrastructure and Environment), DG Water. P.O.Box 20901, 2500 EX the Hague, The Netherlands. Email contact: Rene.dekeling@minvenw.nl

> IMARES Wageningen UR (Institute for Marine Resource and Ecosystem Studies), Dept. Fish ecology; P.O. Box 68, 1970AB IJmuiden, The Netherlands. Email contact: mscheidat@wur.nl; www.imares.nl

> NIOZ Royal Netherlands Institute for Sea Research, Landsdiep 4, 1791 SZ 't Horntje, The Netherlands. Email contact: Kees.Camphuysen@nioz.nl; www.nioz.nl

> SEAMARCO (Sea Mammal Research Company), Applied research for marine conservation, Julianalaan 46, 3843 CC Harderwijk, The Netherlands. Tel (Office): +31-(0)341-456252; Email contact: researchteam@zonnet.nl

> Stichting Rugvin; Jeruzalem 31a; 6881 JL Velp; the Netherlands; Tel: (+31) (0)26-3635444. Email contact: rugvin@planet.nl; www.rugvin.nl

> TNO, Netherlands Organisation for Applied Scientific Research; P.O. Box 96864, 2509 JG The Hague, The Netherlands. Phone +31 (0)88-8664119. Email contact: Frans-Peter.Lam@tno.nl

> Stichting de Noordzee. Natuur, Ruimtelijke Ordening. Drieharingstraat 25. 3511 BH Utrecht, The Netherlands. Phone +31 302340016. www.noordzee.nl

- > Naturalis Netherlands Centre for Biodiversity Naturalis. Postbus 9517, 2300 RA Leiden, The Netherlands. +31 71 568 76 00. Email contact: guido.keijl@ncbnaturalis.nl; www.naturalis.nl
- > Department of Pathobiology, Faculty of Veterinary Medicine, Utrecht University, Yalelaan 1, 3584 CL Utrecht. Email contact a.groene@uu.nl
- > Coastal & Marine Union (EUCC). P.O. Box 11232, 2301 EE Leiden, The Netherlands. Phone +31 71 5122900. Email contact: m.siemensma@kustenzee.nl ; www.eucc.net
- > Marine Science & Communication (MS&C). Bosstraat 123, 3971 XC Driebergen, The Netherlands. Phone +31(6)16830430. Email contact: m.siemensma@msandc.nl
- > SOSDolfijn. P.O.Box 293, 3840 AG Harderwijk, The Netherlands. Phone +31 341 467438.

Habitat Conservation and Management

Fisheries Interactions

Direct Interaction with Fisheries

1.1 Investigations of methods to reduce bycatch

> In December 2012 a study to investigate bycatch in the Dutch setnet fishery was started by IMARES and Marine Science & Communication (see below). Within this project, two vessels take part in a pilot trial to test the effect of Acoustic Deterrent Devices (Bananapinger Fishtek UK). The project is funded by the Dutch Ministry of Economics.

1.2 Implementation of methods to reduce bycatch

> In 2012 the Coastal & Marine Union (EUCC) continued its study on bycatch mitigation within the project funded by the European Fisheries Fund: "bycatch mitigation harbour porpoise". The main aim is to mitigate bycatch of harbour porpoises in the winter set net fishery on cod, turbot and brill in collaboration with the industry. The workability and efficiency of a new pinger (Bananapinger Fishtek UK) and a DDD acoustic device are investigated using both field trials and a behavioural study on a porpoise in captivity at research facility SEAMARCO. The project also aims to: monitor bycatch, facilitate the landing of bycaught porpoises, exchange knowledge, conduct parallel pinger trials and to explore innovative methods to reduce bycatch.

The project is a close collaboration between the Dutch Fisheries Organisation (Nederlandse Vissersbond), the Expert group on set net fishery (Kenniskring Staand want), ten Dutch winter season set net fishermen and the Coastal & Marine Union. The project is funded by the Dutch Ministry of Economics, Agriculture and Innovation (EL&I) and the European Fisheries fund (EFF). In 2012 a short film has been created about the project explaining about the Harbour Porpoise in general, its current threats and highlighting the bycatch. The film further zooms in on the project and explains about set net fisheries, the use of acoustic deterrents and its workability. The film is available on: <http://www.kustenzee.nl/pinger/index.htm> and has been directed by Studio BiB (<http://studiobib.nl>)

> IMARES Wageningen UR and Marine Science and Communication started a Remote Electronic Monitoring project in December 2012 to investigate bycatch of harbor porpoises by Dutch gill net fishery. This project lasts till 2016 and includes three full years of monitoring of 12 vessels. The project is funded by the Dutch Ministry of Economics.

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

1.3 Other relevant information

Other relevant information, including bycatch information from opportunistic sources

> None

1.4 Report under EC Regulation 812/2004

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

> Report EU regulation 812/2004:

Couperus, A. S. 2012. Annual report on the implementation of Council Regulation (EC) No 812/2004-2010., p. 16. Ijmuiden. Centrum voor Visserijonderzoek (CVO) CVO report 12.008.

Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

> TNO participates in the 3S-project, together with FFI (Norway), SMRU (UK) and WHOI (USA). In 2012 the second of a series of experiments took place near Spitsbergen to perform BRS (Behavioural Response Studies) in order to study the behavioural effects of sonar sound on whales. This study took place from 1 to 30 June; target species are: Northern bottlenose whales, minke whales and humpback whales. The cruise was

successful, as reported in the cruise report (Kvadsheim et al.2012). Data is being analysed at present, and more data will be gathered in 2013, both for sonar response, as well as baseline data. Analysis and publication of results were still in progress for observations (and descriptions) of previous 3S-experiments (2006-2010). Previous target species were Killer whale, (long-finned) pilot whale and sperm whale.

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

> The NL-mitigation software for naval operations SAKAMATA has been introduced to the fleet of the Royal Netherlands Navy (RNLN) in 2010. Currently the software has been upgraded to improve user interface and implement latest research results. This new version of the SAKAMATA software is delivered November 2012. New algorithms for implementing sound exposure calculations and efficacy of ramp-up schemes for sonar transmissions are submitted for publication in 2012 (in press at present, May, 2013).

> Drs M. Ainslie and dr. S. von Benda-Beckmann worked on optimisation of ramp-up schemes for moving and stationary sources. The release of Whale FM took place end of 2011 (<http://whale.fm>). This website, as initiated by TNO (dr. Sander von Benda-Beckmann), is asking volunteers on the internet to help classifying marine mammal sounds ("crowd sourcing"). First publications with classification results are published or submitted, e.g. Sayigh et al.(2012, Marine Mammal Science)

> Christ de Jong and Michael Ainslie are members of the ISO Working Group that is developing a standard for measuring sound radiated from ships. A Publically Available Specification (PAS) produced by this Working Group, closely based on ANSI Standard S12.64, was published in February 2012 and is now available from ISO (http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=59403)

> TNO contributes to the hearing threshold shift and behavioural response studies carried led by SEAMARCO. The TNO contribution includes calibration and analysis of underwater sound measurements.

> TNO contributes to the ZKO project "Effects of underwater noise on fish and marine mammals in the North Sea". [<http://www.nwo.nl/projecten.nsf/pages/2300168538>] The TNO contribution is on 'Composition, distribution and intensity of natural and anthropogenic sounds in the Dutch part of the North Sea'. Dr. Michael Ainslie supervises PhD student at Leiden University, Ozkan Sertlek. The objective of the PhD is to develop the knowledge required for calculating sound maps of biological relevance for the Dutch North Sea. The work is done in collaboration with IMARES and SEAMARCO.

> TNO participated in the meeting of Aug-Sep 2011 of the International Quiet Ocean Experiment (IQOE), and has contributed to the draft Science Plan that is published in 2012. Michael Ainslie represents NL on the EC expert Technical Sub-group Underwater Noise "TSG Noise". The final report of the TSG Noise was published in February 2012 [van de Graaf et al 2012]. This Working Group was set up by the EC to advise Member States on interpretation of Descriptor 11 and its two indicators (11.1.1 and 11.2.1)

In collaboration with other projects in Europe, a standard terminology for underwater sound [AHEWGTUS 2011] has been proposed. This terminology has been adopted by TSG Noise. The TSG report recommends the standard be adopted by all MS. The IQOE draft science plan also refers to the standard.

> The PRIMA APP© (Portable Registration and Identification of Marine Animals) is developed by TNO as contracted by the Royal Netherlands Navy (RNLN) and as specified by the NL Hydrographic Office (NLHO). Concept development by TNO, Marine Science & Communication and Sharpener. Biological input is delivered and coordinated by Marine Science & Communication. The Royal Netherlands Navy (RNLN) advertises responsible sonar use. Part of their guidelines is the registration of marine mammals present before, during and after naval sonar operations. In support of this, the PRIMA APP© will be used in order to identify most observed marine mammals easily and reliably. In 2013 a Dutch version of the PRIMA APP© has been developed. TNO and MS&C explore making the PRIMA APP© available for a larger public.

> References:

Sivle, L.D., Petter Helgevd Kvadsheim, M.A. Ainslie, A. Solow, N.O. Handegard, N. Nordlund and F.P.A. Lam (2012) Impact of naval sonar signals on Atlantic herring (*Clupea harengus*) during summer feeding. ICES Journal of Marine Science 69 (6), 1078-1085.

Sivle, L.D., P.H. Kvadsheim, A. Fahlman, F.P.A. Lam, P.L. Tyack and P.J.O. Miller (2012) Changes in dive behavior during naval sonar exposure in killer whales, long-finned pilot whales, and sperm whales. *Frontiers in Physiology*, doi: 10.3389/fphys.2012.00400

Kvadsheim, P.H., P.J.O. Miller, P.L. Tyack, L.D. Sivle, F.P.A. Lam and A. Fahlman (2012) Estimated tissue and blood N₂ levels and risk of decompression sickness in deep-, intermediate-, and shallow-diving toothed whales during exposure to naval sonar. *Frontiers in Physiology*, doi: 10.3389/fphys.2012.00125

Miller, P.J.O., Kvadsheim, P.H., Lam, F.P.A., Wensveen, P.J., Antunes, R., Alves, A.C., Visser, F., Kleivane, L., Tyack, P.L., Sivle, L.D. (2012). The severity of behavioral changes observed during experimental exposures of killer (*Orcinus orca*), long-finned pilot (*Globicephala melas*), and sperm whales (*Physeter macrocephalus*) to naval sonar. *Aquatic Mammals* 38: 362-401.

Curé, C., Antunes, R., Samarra, F., Alves, A-C., Visser, F., Kvadsheim, PH., Miller, PJO. (2012). Acoustically-mediated interspecific interactions in cetaceans. *PlosOne* 7:12.

Reports:

Ad-hoc European Working Group on Terminology for Underwater Sound (AHEWGTUS), Standard for measurement and monitoring of underwater noise, Part I: physical quantities and their units, TNO report TNO-DV 2011 C235, edited by M A Ainslie, September 2011

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

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

J Dreschler, M A Ainslie, W H M Groen, Measurements of underwater background noise Maasvlakte 2, TNO report TNO-DV 2009 C212, May 2009.

H W Jansen, C A F de Jong & F M Middeldorp, Measurement results of the underwater piling noise experiment at Kinderdijk, TNO report TNO-RPT-2011-00546

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

M.A. Ainslie, C.A.F. de Jong, J. Janmaat, H.J.M. Heemskerk, TNO 2012 R10818 | Final report Dredger noise during Maasvlakte 2 construction: Noise maps and risk assessment, November 2012.

A M von Benda-Beckmann, M.A. Ainslie, TNO-DV 2012 A099 | Final report SAKAMATA - marine mammal database v2.4: foundations and background, November 2012.

A M von Benda-Beckmann, F P A Benders, L A te Raa, M.A. Ainslie, TNO-DV 2010 A428 | Final report SAKAMATA 3: Risk assessment model, November 2012.

Kvadsheim, P, FP Lam, P Miller, P Wensveen, F Visser, LD Sivle, L Kleivane, C Curé, P Ensor, S van Ijsselmuide and R Dekeling (2012) Behavioural responses of cetaceans to naval sonar signals in Norwegian waters - the 3S-2012 cruise report FFI-report 2012/02058, <http://rapporter.ffi.no/rapporter/2012/02058.pdf> see also:

<http://www.creem.st-and.ac.uk/mocha/links>

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

2.2 Ship Strike Incidents

Please list all known incidents and provide information separately for each

	Incident 1	Incident 2	Incident 3	Incident 4	Incident 5
Date	15 January 2012	6 July 2012			
Species	Fin whale	Fin whale			
Type of Injury	Head trauma, infected peritoneum	unknown			
Fatal Injury (Yes/No)	Unknown (stranded)	Unknown (most likely already dead on impact)			
Type of Vessel (length, tonnage, speed)	unknown	Container ship, length: 210 m, gross tonnage: 26671, speed (max/avg): 16.5/15.1 knots			
Location (coordinates)	Unknown - Found stranded in Vlissingen, the Netherlands	Unknown - Found on the bulb of the ship in the harbour in Rotterdam, the Netherlands			
More Information (name, email)	www.walvisstrandingen.nl	www.walvisstrandingen.nl			

2.3 Major Incidents

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

	Incident 1	Incident 2	Incident 3	Incident 4	Incident 5
Date	None				
Location					

Type of Incident					
Further Information					

2.4 Pollution and Hazardous Substances

Please report on main types of pollution and hazardous substances (including source, location and observed effects on cetaceans). Please provide information on any new measures taken to reduce pollution likely to have an impact.

> Contaminant concentrations (PCBs, organotin, PFOS) were analysed in beached *P. phocoena* (neonates and juveniles) (2007-2012)(Van den Heuvel-Greve et al., in prep.). Highest median PCB concentrations were found in neonate *P. phocoena* when compared to juvenile *P. phocoena*. PFOS concentrations were comparable in livers of neonate and juvenile *P. phocoena*. Organotin concentrations were highest in juvenile *P. phocoena*.

Reference:

Van den Heuvel-Greve M, Kotterman M, Kwadijk C (in prep). Chemical profiles in harbour porpoises, *Phocoena phocoena*, beached in the southern North Sea. IMARES report.

2.5 Other Forms of Disturbance

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

> none

Marine Protected Areas

Marine Protected Areas for Small Cetaceans

3.1 Relevant Information

Please provide any relevant information on measures taken to identify, implement and manage protected areas for cetaceans, including MPAs designated under the Habitats Directive and MPAs planned or established within the framework of OSPAR or HELCOM.

> In the Dutch Continental Shelf and Coastal Waters, six sites have been identified as marine protected areas. Three offshore areas; Dogger Bank (Doggersbank), Cleaver Bank (Klaverbank) and Frisian Front (Friese Front), and three in the coastal zone; Noordzeekustzone in the north and Voordelta 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 and Birds Directives. All of these marine protected areas, except the Voordelta and Frisian Front, have been designated as a special protection zone for the harbor porpoise. The coastal areas were designated by the Dutch minister. The offshore areas will follow later, probably by the end of 2013. The areas will also be reported to the OSPAR Secretariat as MPA's according to the OSPAR Convention. These future SACs will also be designated for small cetaceans, but additional measures for their protection are unlikely, because the protection of the harbour porpoise will cover the whole Dutch EEZ. The conservation target will probably be formulated as follows: "Maintain the extent and quality of the habitat in order to maintain the population in a sustainable condition".

<http://www.rijksoverheid.nl/onderwerpen/natuur/noordzee>

3.2 GIS Data

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

> none

Surveys and Research

4.1 Abundance, Distribution, Population Structure

Overview of Research on Abundance, Distribution and Population Structure

> In 2012 aerial surveys using distance sampling methods to estimate the abundance of Harbour porpoises *Phocoena phocoena* on the Dutch Continental Shelf were conducted in March and November. These surveys were conducted along predetermined track lines in four areas: A "Dogger Bank", B "Offshore", C "Frisian Front" & D "Delta". In March 2012 the complete Dutch Continental Shelf (DCS) was surveyed. Due to adverse weather conditions it was not possible to find a suitable time window to conduct aerial surveys of the entire Dutch Continental Shelf in summer. Therefore a late autumn survey was conducted in November. In this period surveys could be conducted in three areas (A-C), but abundance estimates could only be made for area B and C.

In total, 260 sightings of 320 individual Harbour Porpoises were collected. The majority of these sightings ($n = 232$) was collected in March. Densities in March varied between 0.70–1.44 animals/km² in the areas A-D. The overall density on the entire Dutch Continental Shelf was 1.12 animals/km². In November densities were lower, with densities of 0.50 and 0.64 animals/km² in area B and C.

The total numbers of Harbour Porpoise on the Dutch Continental Shelf (areas A-D) in March were estimated at ca. 66 000 animals (C.I.: 37 000-130 000). Though this number seemed lower than the population estimate in March 2011 (85 572 C.I.: 49 000-165 000) the confidence intervals greatly overlap. Therefore these numbers can be considered of comparable size.

Harbour Porpoises were widely distributed in March with higher densities in a broad band from the southern border of the DCS to the southern half of areas B "Offshore" and C "Frisian Front". In the northern part of the DCS the distribution seemed more patchy, with a high density in area A "Dogger Bank".

In total 16 sightings of other marine mammal species were made in March. These comprised 4 sightings of in total 11 White-beaked Dolphins *Lagenorhynchus albirostris* in the northern and western part of the DCS. Apart from White-beaked Dolphins 12 single seals were seen, which remained unidentified except 1 Grey Seal *Halichoerus grypus* on 15 March (Geelhoed et al. 2013).

> As part of the 3S-2012 experiment, an area near Spitsbergen has been surveyed (visual and PAM) for Northern Bottlenose whales in June 2012. See cruise report by Kvadsheim et al (2012) for survey effort and 2.1 for description of 3S-project. Previous experiments have been further analyzed.

> The NZG Marine Mammals Database is part of the Dutch Seabird Group (NZG) (established by Kees Camphuysen). Its aim is to collect all sightings of marine mammals in and around the Netherlands. The main number of sightings come from two research programs: seawatching and offshore seabird surveys. In 2012 $n=2354$. More information is available at: www.trektellen.nl

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

> The Rugvin foundation is a volunteer based organisation conducting cetacean surveys in the Southern North Sea and Oosterschelde and member of the Atlantic Research Coalition (ARC). In 2011 they continued their monitoring programme for the Stena ferry line platforms between Hoek van Holland and Harwich. In 2011, 267 harbour porpoises and 8 white-beaked dolphins were counted. Furthermore, there were 5 undetermined individuals counted.

> References:

Geelhoed, S., Scheidat, M., van Bemmelen, R. (2013) Marine mammal surveys in Dutch waters in 2012. Report nr. C038/13. IMARES Wageningen UR

4.2 Technological Developments

New Technological Developments

> TNO has built and tested improvements of the acoustic marine mammal detection array Delphinus. This new configuration was first tested at sea along the Norwegian coast in Feb.2011 in advance of the 3S-2011 BRS experiment. More testing with artificial sources has been performed in 2012, see Kvadsheim et al. 2012. 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.

4.3 Other Relevant Research

> None

Use of Bycatches and Strandings

Post-Mortem Research Schemes

5.1 Contact Details

Contact details of research institutions and focal point

> Department of Pathobiology, Faculty of Veterinary Medicine, Utrecht University, Yalelaan 1, 3584 CL Utrecht, 030 253 3591

5.2 Methodology

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

> T. Kuiken, M. García Hartmann M Proceedings of the first ECS workshop on cetacean pathology; dissection techniques and tissue sampling. ECS Newsletter 17, (1991) Special Issue.

> T. Kuiken, Diagnosis of By-Catch in Cetaceans, Proceedings of the 2nd BCS Workshop on Cetacean Pathology, Montpellier, France 1994. European Cetacean Society Newsletter, 26:38-43 and protocols provided by Jauniaux and Siebert

5.3 Samples

Collection of samples (type, preservation method)

> Depending on conservation state:

1. A variety of specific organs/tissues or tissues with pathologic changes. Depending on the type of research formalin-fixed, paraffin-embedded, or frozen to -20°C (-80°C for virology research)

2. Gastric contents (frozen to -20°C handed to IMARES)

3. Liver, fat and muscle (frozen to -20°C handed to IMARES)

4. Skin (ethanol)

5. Teeth (water or frozen to -20°C handed to IMARES)

6. Parasites (70% alcohol)

7. Swabs from the genital openings

5.4 Database

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

> Excel, Access

5.5 Additional Information

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

> All strandings are collated in a database and shown on the website of Naturalis (www.walvisstrandingen.nl). In 2012, 720 harbour porpoises, 2 fin whales, 2 humpback whales (1 stranding, 1 vertebra), 1 sperm whale, 1 common bottlenose dolphin (lower jawbone), 1 white-beaked dolphin were registered. Not yet determined were 2 findings of a lower jaw. In both cases this was possibly from a common bottlenose dolphin, but could also be from a white-beaked dolphin.

Activities and Results

5.6 Necropsies

Number of necropsies carried out in the reporting period

	Number	Recorded cause of death
Phocoena phocoena	149	Bycatch, infectious disease (21%), emaciation (19%), starvation (5%), other (5%), trauma (7%) and unknown (13%). The research is on-going, so these numbers are preliminary. (During the research time period two peaks could be seen. In February the main cause of death was by-catch and trauma. In the summer months the main cause of death was emaciation and starvation)
Tursiops truncatus		

Delphinus delphis		
Stenella coeruleoalba		
Grampus griseus		
Globicephala melas		
Globicephala macrorhynchus		
Lagenorhynchus albirostris		
Lagenorhynchus acutus		
Orcinus orca		
Hyperoodon ampullatus		
Mesoplodon bidens		
Kogia breviceps		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		
Other (please specify under number)		

5.7 Other Relevant Information

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

> Between December 2011 and November 2012, 149 harbour porpoises were necropsied at the Department of Pathobiology of the University of Utrecht. Of these animals, the percentage of bycatch was between 2 and 9%. For the whole period of the study (2009-2012) the bycatch percentage is between 10 and 28%. Other causes of death included: trauma (33%), infectious disease (15%), emaciation (13%), starvation (7%), other (2%) and unknown (13%).

During the research period 2 peaks could be seen. In wintertime, the main cause of death was bycatch and trauma. In March, there were a surprising high number of strandings with the main cause trauma. Due to this, the pattern of the damage was being recorded from then onwards. Causes for the trauma could include attacks from grey seals, propellers or humans cutting the animals.

> Begeman L. Gröne A. en Hiemstra S. 2012. Postmortaal onderzoek van Bruinvissen uit Nederlandse wateren van 2009 tot 2012. Rapport 2012, Departement Pathobiologie, Faculteit Diergeneeskunde, Universiteit Utrecht.

Relevant New Legislation, Regulations and Guidelines

6.1 New Legislation, Regulations and Guidelines

Please provide any relevant information

> The Dutch Ministry of Economics, Agriculture and Innovation (EL&I) commissioned the writing of a “Harbour porpoise species conservation plan: towards a favourable conservation status” (Camphuysen & Siemensma 2011). The aim of this conservation plan is to improve or at least maintain the current conservation status of Harbour Porpoises in North Sea waters under Dutch jurisdiction. In 2012 a number of activities were conducted to implement this plan. First of all a

national scientific research group was established to deal with aspects such as research needs, research quality and evaluation of the quality and conclusions of reports. In December 2012 a project to investigate bycatch in Dutch setnet fishery was started (see section 1).

> Concerning the Marine Strategy Framework Directive (MSFD), in the Initial Assessment report the currently available information is described on the abundance, distribution and habitat use of harbour porpoises on the Dutch Continental Shelf. In the report on the description of a Good Environmental Status, the present state at species level is described for e.g. harbour porpoises, leading to a definition for Good Environmental Status for Biodiversity. In the Targets & Indicators report the number of harbour porpoises is proposed as one of the indicators for GES 1 Biodiversity - 1.2 Population size. Also the OSPAR EcoQO on by-catch levels is proposed as one of the indicators for GES 4 Food webs - 4.3.1 Abundance trends of functionally important selected groups/species. In the Dutch Marine Strategy a final selection of the proposed targets & indicators has been made. Sea mammals are mentioned under Descriptors 1 (Biodiversity) and 4 (Foodweb). For both descriptors there are no indicators yet for sea mammals. Indicators for harbor porpoises will be developed using the “Harbour porpoise species conservation plan: towards a favourable conservation status” (Camphuysen & Siemensma 2011). For species that are protected under the Habitats Directive, national objectives will be the same as under the Habitats Directive.

> References

Boon AR, Prins TC, Slijkerman DME, Schipper CA (2011) Environmental targets and associated indicators.

Implementation of the Marine Strategy Framework Directive for the Dutch part of the North Sea: background document 3. Deltares rapport, IMARES rapport C128/11.

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Public Awareness and Education

7.1 Public Awareness and Education

Please report on any public awareness and education activities to implement or promote the Agreement to the general public and to fishermen.

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

> IVN Consulentenschap Zeeland, the National Park Oosterschelde in collaboration with Rugvin Foundation and Marine Science & Communication initiated a project on the Harbour Porpoise in the Oosterschelde Estuary. The project "Welcome Porpoise" will continue in 2013 and aims to make visitors of the National Park aware of porpoises in the Oosterschelde (<http://www.np-oosterschelde.nl/>). In September 2012 a brochure as one of the project results has been presented to visitor of the National Park Oosterschelde. Focus of this brochure is to learn visitors where to observe Harbour Porpoises, from either boat or land and how to recognise this small whale. Further more the brochure informs about the Harbour Porpoise in general.

> In 2011, the North Sea Foundation, a Dutch NGO, has initiated two projects to raise awareness on marine litter, MyBeach and Coastwatch. MyBeach is a special area at the beach, next to a beach pavilion, where visitors keep the beach clean. You can recognize this area by information boards, bins and beach flags. Beach cleanups and litter counts are organized here, with use of the 'Strandscanner', a special app for the smartphone to count specific litter items. The application also includes an option to record stranded cetaceans, such as harbour porpoises. The number of participating "MyBeaches" increased from 2 in 2011, 6 in 2012 and 24 in 2013. Coastwatch is an education project for high school students, with lectures in the class and on the beach.

Possible difficulties encountered in implementing the Agreement

Difficulties in Implementing the Agreement

Please provide any relevant information

> None