

Agenda Item 2

Annual National Reports 2010

Document 2-07

Annual National Report Netherlands

Action Requested

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

Submitted by

The Netherlands



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

Revised Format for the
 ASCOBANS Annual National Reports

General Information

Name of Party: The Netherlands	Period covered: January 2010 to December 2010 (unless stated differently)
	Date of report: 15 April 2010

Report submitted by:	
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Any changes in coordinating authority or appointed member of advisory committee	

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

EL & I (Dutch Ministry of Economic Affairs, Agriculture and Innovation); P.O.Box 20401, 2500 EK The Hague, The Netherlands. email contact: f.van.dijken@minlinv.nl

IMARES Institute for Marine Resource and Ecosystem Studies, Dept. Ecosystems; P.O. Box 167, 1790 AD Den Burg, The Netherlands. Email contact: mscheidat@wur.nl

NIOZ Royal Netherlands Institute for Sea Research, Landsdiep 4, 1791 SZ 't Horntje, The Netherlands. Email contact: Kees.Camphuysen@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; E-mail contact: researchteam@zonnet.nl

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

www.noordzee.nl

Naturalis National Museum of Natural History. Postbus 9517, 2300 RA Leiden, The Netherlands. +31 71 568 76 00. www.naturalis.nl ; naturalis@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; m.siemensma@kustenzee.nl phone +31 71 5122900. www.eucc.net

Marine Science & Communication. Bosstraat 123, 3971 XC Driebergen, The Netherlands; phone +31(6)16830430. Email contact m.siemensma@msandc.nl

SOSDolfijn. Postbus 293, 3840 AG Harderwijk, The Netherlands. phone +31 341 467438.

Ministerie van Verkeer en Waterstaat, DG Water. Postbus 20901, 2500 EX Den Haag, The Netherlands. Email contact Rene.dekeling@minvenw.nl

NEW Measures / Action Towards Meeting the Objectives of the Conservation and Management Plan and the Resolutions of the Meeting of Parties

Please feel free to add more rows to tables if the space provided is not sufficient.

A. HABITAT CONSERVATION AND MANAGEMENT

1 Direct Interaction with Fisheries

Investigations of methods to reduce bycatch

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 Fisheriesfund 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.

Implementation of methods to reduce bycatch

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Please provide any other relevant information, including bycatch information from opportunistic sources.

Bram Couperus is nominated chair of ICES expert group Working Group on the Bycatch of Endangered Species (WGBYC) in 2012.

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

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

2 Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

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

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

References:

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

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

2.2 Ship Strike Incidents

Please list all known incidents and for each, provide the following information:

Date	Species	Type of	Fatal injury	Type of	Location	More
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		injury	(Yes / No)	vessel (length, tonnage and speed)	(coordinates)	information: (Name / Email)
23 June 2010	Harbour porpoise	Tailstock broken	Not immediately, presumably found dead later	Unknown, ship strike reported by skipper	Eastern Scheldt, Delta Area	Marije Siemensma

2.3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
-	-	-	-

*Two or more animals

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.

IMARES studied redistribution processes of organic contaminants in harbour porpoises due to starvation. Liver and blubber of 36 beached harbour porpoises were analysed for PCBs, PBDEs, HBCD, PFCs and organotin compounds. These data indicate that concentrations and profiles of organic contaminants in marine top predators, such as harbour porpoises, may not only be influenced by common bioaccumulation processes such as e.g. uptake from food and metabolism, but also by emaciation. Non-lipophilic contaminants, such as PFCs, do not show differences due to emaciation.

References:

Van den Heuvel-Greve, M.J., S. Glorius, S. Bierman, M. Kotterman (2010). Contaminant distribution in harbour porpoises, *Phocoena phocoena*, stranded along the Dutch coast. IMARES rapport C180/10, final draft 24-12-2010.

2.5 Other Forms of Disturbance

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

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/Images/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.

3 Marine Protected Areas for Small Cetaceans

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.

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

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

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

B. SURVEYS AND RESEARCH

4.1 Overview of Research on Abundance, Distribution and Population Structure

Please provide an brief summary of (and reference to) any national work.

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-Beckmann, AM, FPA Lam, DJ Moretti, K Fulkerson, MA Ainslie, SP van IJsselmuiden, 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 (AUTEK) 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

4.2 New Technological Developments

Please provide a brief summary of any relevant information

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.

4.3 Other Relevant Research

Please provide a brief summary of any relevant information

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C. USE OF BY-CATCHES AND STRANDINGS

5 Post-Mortem Research Schemes

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.

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

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Collection of samples (type, preservation method)	Depending on conservation state: 1. a variety of specific organs/tissues or tissues with pathologic changes, formalin-fixed, paraffin-embedded 2. gastric contents (frozen handed to Imares) 3. liver, fat and muscle (-20) 4. skin (ethanol) 5. teeth (water)
Database (Number of data sets by species, years covered, software used, online access)	Excel, Access
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	All strandings are collated on the website of Naturalis (www.walvisstrandingen.nl). In 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

5.1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
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.

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

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.

D. LEGISLATION

6.1 Relevant New Legislation, Regulations and Guidelines

Please provide any relevant information.

Couperus: Minor changes in EU regulation 812/2004 are planned. Main new item is the requirement to report in a standard format.

Harbour Porpoise species conservation plan

In October 2010 Kees Camphuysen (NIOZ) and Marije Siemensma (Marine Science & Communication) started writing a Harbour Porpoise species conservation plan commissioned by the Dutch Ministry of Economics, Agriculture and Innovation (EL&I). The aim of this conservation plan is to improve or at least maintain the current conservation status of Harbour Porpoises in North Sea waters under Dutch jurisdiction. Given the mobility of porpoises and the seasonality in their widespread occurrence throughout the Dutch sector of the North Sea, a generic conservation plan rather than an area based approach 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.

E. INFORMATION 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.

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

POSSIBLE DIFFICULTIES ENCOUNTERED IN IMPLEMENTING THE AGREEMENT

Please provide any relevant information.

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