

Agenda Item 5.4: Annual National Reports

Annual National Reports for 2005: Belgium

Submitted by: Belgium

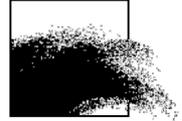


NOTE:
**IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING
THEIR OWN COPIES OF THESE DOCUMENTS TO THE MEETING**

ROYAL BELGIAN INSTITUTE OF NATURAL SCIENCES

MANAGEMENT UNIT OF THE NORTH SEA
MATHEMATICAL MODELS (MUMM)

SECTION 15
MARINE ECOSYSTEM MANAGEMENT



ASCOBANS Annual National Report 2005

MUMM
100 Gulledelle
B-1200 Brussels
Belgium

ASCOBANS Annual National Report 2005

A. General information

BELGIUM	1 JANUARY 2005 – 31 DECEMBER 2005
Name of party	Period covered
Jan Haelters (MUMM/RBINS); additional information provided by Thierry Jauniaux (Ulg) and Francis Kerckhof (MUMM/RBINS)	31 March 2006
Name of report compiler	Date of the report
None	
Any changes in co-ordinating authority, appointed member of advisory committee	

B. New measures/action towards meeting the resolutions of the 2nd Meeting of Parties

1. Direct interaction of small cetaceans with fisheries

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Investigations of methods to reduce by-catch
<p>In 2005, next to the Belgian bottom set gill net fishermen active in territorial waters, also two Dutch gill net fishermen were very regularly fishing in these waters, predominantly in the second half of the year. They especially targeted bass, with gill nets with a relatively large mesh size (15cm).</p> <p>In 2005 for the first time, a professional gill net fisherman reported bycatch of porpoises (in total 3), and another one stated that a professional fisherman had taken around 6 animals in 2004 (all in Belgian waters). One of the bycaught porpoises was delivered to MUMM for research purposes. In order to continue the established cooperation with fishermen, reports of bycatches are not made available on MUMM's website. Stranded bycaught animals however, are reported as such in the online database.</p>
Implementation of methods to reduce by-catch

Species	Estimated number of by-caught animals	Area (ICES area or more detailed)	Notes (type of fishery, effort, seasonal variations, etc.)
All estimates are provisional			
<i>Phocoena phocoena</i>	3 ⁺	IVc	Recreational beach fisheries, probably gill nets; one animal was returned alive
<i>Phocoena phocoena</i>	3 ⁺	IVc	Professional gill net fisheries
<i>Phocoena phocoena</i>	1	IVc	Bottom trawl
<i>Phocoena phocoena</i>	11-15 ⁺ Total lethal bycatch: 17-22 ⁺	IVc	Unknown gear
<i>Lagenorhynchus albirostris</i>	1	IVc	Unknown gear

2. Reduction of disturbance to small cetaceans

<p>No more regular high-speed ferry routes between Belgium and the United Kingdom are in operation.</p> <p style="text-align: center;">Information on levels of disturbance (e.g. seismic surveys, new high-speed ferry routes, studies about acoustic impacts on cetaceans, etc.)</p>
<p>In April 2004 the construction and exploitation of an offshore windfarm was licenced. The windfarm of 60 turbines will be located on the Thorntonbank, approximately 27 km offshore. During the construction phase (probably starting in 2007), measures will have to be taken for avoiding disturbance of, or harming marine mammals (ramp up procedures for pile driving operations, deployment of pingers, ...). On 22 September 2005 a change in the planning schedule, in the size of the turbines (up to 5MW each) and type of foundation (gravitary instead of monopole) was requested. This request was accompanied by an EIA, which is being dealt with by the authorities in 2006. More information is available at MUMM's website (http://www.mumm.ac.be).</p> <p style="text-align: center;">Implementation of guidelines, new legislation, etc. to reduce disturbance</p>

3. Protected areas for small cetaceans

<p>On 14 October 2005 a Royal Decree was issued (Official Journal of 31 October 2005) establishing three SPA's (European Birds Directive) and one SAC, and further proposing one SAC (European Habitats Directive). None of these areas were proposed specifically for protecting cetaceans.</p> <p style="text-align: center;">Measures taken to identify, implement and manage protected areas</p>
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4. Further research on small cetaceans

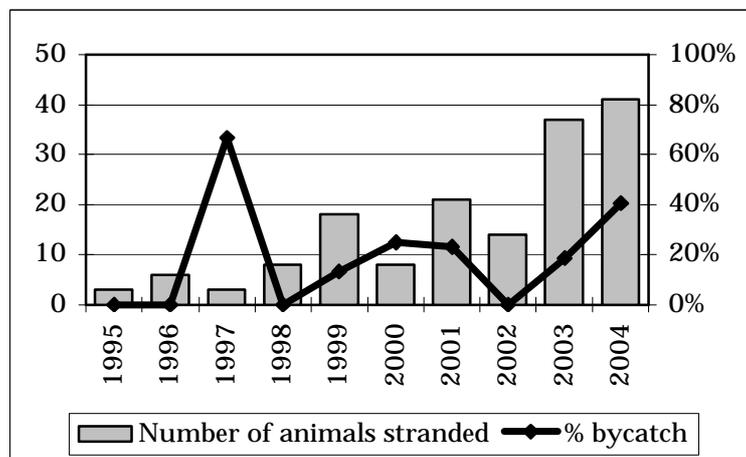
In 2005 a record number of (dead, stranded and bycaught) harbour porpoises was counted in Belgium:

- 79 washed ashore dead;
- 3 were found dead at sea;
- 2 washed ashore alive, and were transported by MUMM to the rehabilitation centre at Harderwijk, The Netherlands, where they died;
- 1 washed ashore alive, and was returned alive to sea;
- 1 got stuck (alive) in a fishing net (recreational beach fisheries); it was returned to sea alive;
- 1 was bycaught by a bottom trawler;
- 3 were bycaught by one of the professional gill net fisherman; 1 was delivered to MUMM.

In 2005 one dead juvenile white-beaked dolphin washed ashore; this animal had been bycaught in (unknown) fishing gear.

Most of the carcasses were available for research, and were investigated according to the state of decomposition.

The percentage of stranded porpoises that was bycaught between 1995 and 2004 is given in the figure below (MUMM/RBINS, unpublished). The percentage is calculated using the total number of washed ashore porpoises for which a cause of death could be determined (117 animals out of 159). In total bycatch was the cause of death of at least 27 animals, or on average 23% of all stranded animals between 1995 and 2004 for which a cause of death could be determined. The highest absolute number of bycaught animals up to 2004 was observed in 2004: 13 (or 41% of the animals for which a cause of death could be determined).



A report on the results of the autopsies performed on cetaceans in 2005 is in preparation. A preliminary assessment of bycatches in 2005 (data MUMM/RBINS and Ulg, unpublished) is the following:

- Certain (lethal) bycatch: 17+ porpoises, of which 1 bottom trawl, 3+ professional gillnet, 2+ recreational beach fisheries (indirect information); additionally 1 animal bycaught in recreational beach fisheries, put back to sea alive. As in the years before, gutted animals were found (3). Fishermen sometimes cut bycaught animals open hoping they will sink out of sight.
- Probable bycatch: 4+ porpoises
- Certain bycatch: 1 white-beaked dolphin (unknown gear)

The total number of dead porpoises for which a cause of death could be determined was 59 (including the two animals that stranded alive, and died at Harderwijk), the percentage 'bycatch' as the cause of death was 36% (preliminary figure).

Implementation of schemes to use and gain information from stranded cetaceans

SCANS II

In 2005 part of the oceanographic vessel BELGICA ship time was dedicated to SCANSII (30 May to 9 June 2005).

Sightings

Numerous sightings of harbour porpoises were reported to MUMM in 2005, most of these between January and April, but also some in summer months. Eric Stienen, Mark Vandewalle and other researchers at the Institute of Nature Conservation (now INBO: Research Institute for Nature and Forest) reported, besides a large number of sightings of harbour porpoises, a sighting of two long-finned pilot whales and two sightings (resp. 2 and 3 animals) of bottlenose dolphins during their seabirds at sea surveys in 2005. INBO and others reported a few sightings of white-beaked dolphins to MUMM.

Number of porpoises present in Belgian waters

Researchers at INBO estimated (roughly) that between 2.000 and 5.000 porpoises were present in Belgian waters in late winter-spring 2005 (Eric Stienen, personal communication). From sightings during two aerial observation flights (modified pollution control flights) performed by MUMM it was (roughly) estimated that the average density of porpoises in Belgian waters in March and April 2004 was between 0.2 to 0.6 per square km, or 650 to 2100 animals (HAELTERS & JACQUES, 2006). Numbers of porpoises in Belgian waters in summer and autumn are much lower.

EC infringement procedure

In 2003 the European commission opened a case against Belgium (a.o.) with the aim of getting more information about the implementation by Member States of article 11 and 12 of the European Habitats Directive, regarding cetaceans (case 2003/2081). In a letter dated 18 February 2004 Belgium responded to the request, but in analysing the information the EC concluded that not all measures had been taken to implement article 11. To indicate that Belgium has implemented articles 11 and 12 for cetaceans, additional information was sent to the EC by 19 February 2006. A basis for this additional information is presented in HAELTERS & JACQUES, 2006.

Publications, communications

FONTAINE, M.C., TOLLEY, K.A., RIDOUX, V., JAUNIAUX, T., SEQUEIRA, M., ADDINK, M., SMEENK, C., SIEBERT, U., BIRKUN, A., LUPEZ, A., BOUQUEGNEAU, J.M. & MICHAUX, J.R., 2005. Phylogeography of harbour porpoises *Phocoena phocoena* in the southeastern north Atlantic and in the Black Sea explored by the analyses of nuclear and mitochondrial DNA. 19th Annual conference of the European Cetacean Society, La Rochelle (France), 2-7 April 2005.

FONTAINE, M., BAIRD, S., TOLLEY, K., DUKE, S., OIEN, N., VIKINGSSON, G., BLOCH, D., SIEBERT, U., ADDINK, M., SMEENK, C., JAUNIAUX, T., ROGAN, E., RIDOUX, V., LLAVONA, A., SEQUEIRA, M., FERREIRA, M., BIRKUN, A., ÖZTÜRK, B., ÖZTÜRK, A., DEFFONTAINE, V., DAS, K. & MICHAUX, J., 2005. Phylogeography of harbour porpoise (*Phocoena phocoena*) in the eastern North Atlantic and in the Black Sea explored by the analyses of nuclear and mitochondrial DNA. Biennial conference on the biology of marine mammals. San Diego, California, USA, December 11-16, 2005.

- HAEALTERS, J., 2005. On the occurrence of the bottlenose dolphin *Tursiops truncatus* in Belgian waters. ASCOBANS Advisory Committee Meeting 12, doc AC12/10, Brest, 12-14 April 2005, 5p.
- HAEALTERS, J. & KERCKHOF, F., 2005. De bescherming van de bruinvis: een brug tussen het Europese visserij- en milieubeleid. Argus Milieumagazine 3(1): 4-7.
- HAEALTERS, J. & KERCKHOF, F., 2005. A remarkable increase in the number of stranded harbour porpoises *Phocoena phocoena* at the Belgian coast, in: MEES, J. & SEYS, J. (Ed.), 2005. VLIZ Young Scientists' Day, Brugge, Belgium 25 February 2005: book of abstracts. VLIZ Special Publication, 20: pp. 39
- HAEALTERS, J., MACLEOD, K. & VAN MOL, B., 2005. Belgica cruise 2005-13 report: SCANS II & BELCOLOUR (30 May to 8 June 2005). 16p.
- HAEALTERS, J. & NOIROT, I., 2005. The influence of active SONARs on marine mammals : a new concern for the Belgian Defence. Advisory Committee of ASCOBANS , Brest, France, 12-14 April 2005, 3p.
- HAEALTERS, J. & JACQUES, T.G., 2006. De bescherming van walvisachtigen in Belgische wateren: bijkomende informatie gericht aan DG Leefmilieu van de federale Overheidsdienst volksgezondheid, veiligheid van de voedselketen en leefmilieu, m.b.t. de uitvoering door België van de Habitrichtlijn Art. 11 en 12 voor wat betreft walvisachtigen. Koninklijk Belgisch Instituut voor Natuurwetenschappen, Beheerseenheid Mathematisch Model Noordzee (BMM), Brussel. 14p.
- JAUNIAUX, T., DAS, K., BRENEZ, C., HAEALTERS, J. & COIGNOUL, F., 2005. The Belgian stranding network. European Cetacean Society workshop on national Stranding Networks, La Rochelle 2005.

Research on abundance, population structure etc.

5. Research on the effects of pollutants on cetacean health

Research projects

Viability of the Northeast Atlantic harbour porpoise and seal population (Pollution and bio-marker study, contract EV/XX/806): coordinated by Jean-Marie Bouqueneau, contact person: K.Das (krishna.das@ulg.ac.be)

The goals of this project are to study (1) the ecological status of harbour porpoises in the north-eastern Atlantic Ocean and (2) to evaluate the impact of the environment using biomarkers. To attain these objectives, 3 approaches are established: (1): determination of biological parameters (age, sex, length, weight,...), (2): health status and cause of death and (3): analyses of contaminants in tissues and identification of possible biomarkers.

Viability of the Northeast Atlantic harbour porpoise and seal population (Genetic and Ecological studies, Contract number: EV/12/46): coordinated by Jean-Marie Bouqueneau, contact K.Das (krishna.das@ulg.ac.be)

The goals of this project are (1) to characterise the genetic diversity of porpoises (thesis subject of M.Fontaine in collaboration with J.Michaux, Zoogéographie, Université de Liège) and (2) a better comprehension of the food ecology of porpoises and seals through the determination of isotope levels (C and N) in muscles and blood (theses subject of O.Drouget, laboratoire d'Océanologie, Université de Liège).

Evaluation of the immunotoxicity of mercury, zinc, polychlorobiphenyls and methyl sulfonyl polychlorinated biphenyls on cytokine secretion by marine mammals: coordinated by K.Das

The goal of this research project is to study the risk on the immune system of porpoises and seals caused by exposure to methylmercury, to zinc and to polychlorobiphenyls. This project is executed in cooperation between the University of Liège (Belgium), The Westkueste, Kiel University, Germany (Dr.U.Siebert) and the GKSS Forschungszentrum, Germany (Dr.S.Fonfara).

Development of a method to identify specific biomarkers related to the effects of dioxins-like compounds on the immune system: coordinated by E.Depauw, thesis project of C.Brenez

The goals of this study are to identify (1) the immunotoxicological effects of dioxines et furanes on mammalian (human and marine mammal) lymphocytes through exposition of cell cultures to contaminants, (2) an alternative method to identify the effects by protein analysis of the exposed cells, and (3) biomarkers that can be used on mammal tissues.

Publications, communications

- DAS, K., FONFARA, S., JAUNIAUX, T., BEINEKE, A. & SIEBERT, U., 2005. Cytokine mRNA expression in the blood of harbour porpoises: indicator of inflammatory diseases? 19th Annual conference of the European Cetacean Society, La Rochelle (France), 2-7 April 2005.
- DROUGUET, O., SIEBERT, U., JAUNIAUX, T., REIJNDERS, P., HOLSBEEK, L., LEPOINT, G. & DAS, K., 2005. Ecological and pathological factors related to trace metal concentrations in harbour seal *Phoca vitulina* in the North Sea. 19th Annual conference of the European Cetacean Society, La Rochelle (France), 2-7 April 2005.
- JAUNIAUX, T., 2005. Plongée et barotraumatisme chez les cétacés. International conference on cetaceans (*Réserve Internationale Maritime en Méditerranée Occidentale*), séminaire annuel du Réseau National d'échouage français, Antibes, November 19, 2005. Invited talk.
- JAUNIAUX, T., BRENEZ, C. COLMAGRO, E., DAS, K., HAELTERS, J. & COIGNOUL, F., 2005. Lesions observed on by-caught harbour porpoises (*Phocoena phocoena*) along the Belgian and northern French coastline, from 1995 to 2005. 16th biennial conference on the biology of marine mammals. San Diego, California, USA, December 11-16, 2005.
- PIERCE, G., SANTOS, M.B., LEARMONTH, J.A., ZUUR, A.F., BOON, J., ZEGERS, B., CAURANT, F., RIDOUX V., BUSTAMANTE, P., LAHAYE, V., LAW, R., ROGAN, E., MURPHY, V., MOFFAT, C., ADDINK, M., LOPEZ, A., ALONSO, J., GONZALEZ, A., GARCIA-HARTMANN, M., JAUNIAUX, T., LOCKYER, C., REID, R. & DABIN, W., 2005. Trophic links as vectors of pathogens and contaminants. 19th Annual conference of the European Cetacean Society, La Rochelle (France), 2-7 April 2005.

Research on the effects of pollutants on cetacean health

5. Public awareness and education

Information on stranded animals and on sightings, is given on the website of MUMM (in Dutch, English and French): http://www.mumm.ac.be/EN/Management/Nature/search_strandings.php. For reporting sightings, an email account can be used: dolphin@mumm.ac.be (this email account is mentioned in the 'Belgian' ASCOBANS folder).

For notifying unusual matters in the marine environment (including strandings), the federal North Sea administration (Fod Leefmilieu) created a free telephone number (the '*Bruinvislijn*'), which can be reached 24h/24h at 0800/92.595 (notifying by the public).

A website (<http://www.zeezoogdieren.be>) provides the public with useful information on marine mammals in the southern North Sea (Belgium and the Netherlands), and includes a discussion forum.

Measures taken in the fields of public awareness and education to implement or promote the Agreement

6. Other relevant news