

2015 ASCOBANS Annual National Reports

This questionnaire has been pre-filled with answers given in 2014 National Report - **please update!**

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.

General Information

Name of Party

> Denmark

Report prepared by

This should indicate the name and affiliation of the lead person for filling in the report.

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Coordinating Authority and National Coordinator

Please confirm the Coordinating Authority responsible for the national implementation of the Agreement, and give the name and contact details of the officially appointed National Coordinator (Focal Point).

> The Coordinating Authority, is the Danish Nature Agency. The Danish Nature Agency is an institution under the Danish Ministry of the Environment.

The National Coordinator is: Camilla Uldal , Biologist, Section of Environmental Protection.
Phone +45 72542420, email: cakis@nst.dk

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

> Marine Biological Research Center, University of Southern Denmark, Hindsholmvej 11, 5300 Kerteminde, Denmark. Contact person: Magnus Wahlberg, phone +45 22163950, email: magnus@biology.sdu.dk

> The National Veterinary Institute, DTU-VET, Bülowsvej 27, 1870 Frederiksberg C, Denmark.
Contact person: Mette Sif Hansen, phone +45 35886719, email: mesi@vet.dtu.dk

> DTU AQUA, National Institute of Aquatic Resources, Section for Ecosystem Based Marine Management, Technical University of Denmark, Charlottenlund Slot, Jægersborg Allé 1, 2920 Charlottenlund, Denmark.

Contact person: Finn Larsen, phone +4535883496, email: fl@aqua.dtu.dk

> The Fisheries and Maritime Museum, Tarpbagevej 2, 6710 Esbjerg V, Denmark.
Contact person: Lasse Fast Jensen, phone +4576122000, email: lfj@fimus.dk

> DCE- Danish Centre for Environment and Energy, Department of Bioscience, Aarhus University, Frederiksborgvej 399, 4000 Roskilde, Denmark.

Contact person: Jonas Teilmann +45 87158494, email: jte@dmu.dk

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

Contact person: Jakob Højer Kristensen, phone +45 42131550, email: jakob@fjord-baelt.dk

Habitat Conservation and Management

Fisheries Interactions

Direct Interaction with Fisheries

1.1 Investigations of methods to reduce bycatch

> Pingers cause temporary habitat displacement in the harbour porpoise *Phocoena phocoena*. Kyhn, L. A., Jørgensen, P. B., Carstensen, J., Bech, N. I., Tougaard, J., Dabelsteen, T., & Teilmann, J. (2015). *Marine Ecology Progress Series*, 526, 253-265.

Abstract: Several studies have shown that pingers mitigate porpoise bycatch and thus pinger use is now mandatory in some fisheries—although the long-term effects of pinger exposure on porpoises have not been well studied. The effects of 2 types of pingers (Airmar: 10 kHz tone; Save-Wave Black Saver: 30–160 kHz sweep) on the presence of wild harbour porpoises, *Phocoena phocoena*, were investigated in 2 areas. Pinger spacing within the areas was similar to that used in commercial fisheries. Two scenarios were tested: (1) pingers were periodically activated and deactivated during 6 periods resembling the deployment and recovery of nets in a gillnet fishery, and (2) pingers were active continuously for 28 d. Acoustic dataloggers (T-PODs) were deployed, 4 within the pinger areas and 3 in control areas, and detected porpoise echolocation activity throughout the entire study. During the periodic-exposure scenario, the porpoise detection rate was reduced by 56% when pingers were active. The reduction was larger for the SaveWave pingers (65%) than for the Airmar pingers (40%). There was a tendency for the encounter rate to increase after the first 2–4 periodic exposures, which could indicate gradual habituation. During the continuous-exposure scenario, the detection rate was reduced by 65% throughout the 28 d with no sign of habituation. In the control areas (2.5, 3 and 5 km distant), neither a decrease nor an increase in detection rate was observed, suggesting that porpoises were displaced either 5 km away. If pingers are used as deterrent devices, the impact of habitat exclusion must therefore be considered concurrently with mitigation of bycatch, especially when regulating fisheries in Marine Protected Areas.

> Management of fisheries in harbour porpoise (*Phocoena phocoena*) marine protected areas

Ph.D thesis. Author: Kindt-Larsen, Lotte.

Summary: The harbour porpoise (*Phocoena phocoena*) is the focus of a range of conservation efforts and policies aiming at reducing bycatch of the species in gillnet fisheries. In European waters, the harbour porpoise is protected within the Habitats Directive (Annexes II and IV), implying that the population has to be maintained at a favourable conservation status and the deliberate actions of killing and disturbance and habitat deterioration shall be prohibited in accordance with the directive's aims. A spatial network, Natura2000, will further protect all Annex II species. According to Natura2000, Member States are obliged to nominate candidate protected areas in their waters to the EU Commission and within six years establish legislation to implement them as special areas of conservation and prepare management plans. Up to this point in time, however, no such management plans exist. This Ph.D. thesis focuses on research methods and management tools, which can contribute to a better scientific understanding in the preparation of fisheries management plans for Natura2000 sites designated for harbour porpoises. Firstly, it investigates the potential use of CCTV cameras to document bycatch of marine mammals. Here

it is shown that Remote Electronic Monitoring (REM) systems installed on commercial fishing vessels can provide video footage, time and position of all net hauls and record bycatches of marine mammals. Comparisons between the visual analysis of the REM data and fishers logbooks showed that the REM system gave more reliable results since fishers did not, in many instances, observe the bycatch while working on the deck because it dropped out of the net before coming on board. Furthermore, REM provided high percentage coverage at low cost, compared to on-board observers. Secondly, the suitability of using high-resolution spatial and temporal data on porpoise density and fishing effort data from the Danish Skagerrak Sea as a method to predict harbour porpoise bycatches was examined. The results showed that a simple relation between the two could predict bycatch and that the final model can thus be used as a tool to identify areas of porpoise bycatch

1.4 Report under EC Regulation 812/2004

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

> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0578:FIN:EN:HTML>

Reduction of Disturbance

2.1 Anthropogenic Noise

Please reference and briefly summarise any studies undertaken

> Review: Effects of seal scarers on harbour porpoises. Hermannsen, L., Mikkelsen, L., & Tougaard, J.

(2015). Research note from DCE - Danish Centre for Environment and Energy. Roskilde, Denmark: Aarhus University.

Abstract: Seal scarers or seal scramblers are devices designed to deter seals from fishing gear and aquaculture installations to avoid depredation on fish. The deterrence effect towards porpoises is increasingly exploited as a mitigating tool for harbour porpoises in connection with installation of offshore wind turbines. When evaluating the effectiveness of seal scarers as mitigation devices, it is of particular importance to know the minimum deterrence distance of the device. The minimum deterrence distance is the distance within most or all porpoises can be expected to be deterred and this range is important for assessing the risk of porpoises acquiring hearing damage from the subsequent pile-driving noise. For a seal scarer to be effective as a mitigation tool, it must thus be able to deter porpoises beyond this critical distance, before the pile-driving operation begins.

Based on re-evaluation of the results of a number of field studies where reactions of porpoises to seal scarer sounds were studied, we conclude that the minimum deterrence distance of porpoises within which all harbour porpoises can be expected to be deterred, is about 350 m for the Lofitech seal scarer, and somewhat less, about 200 m for the Airmar seal scarer. If the protocol for mitigation allows for less than total deterrence, the minimum deterrence distance for the Lofitech seal scarer increases to somewhere in the range between 1300 m and 1900 m.

> Characteristics and Propagation of Airgun Pulses in Shallow Water with Implications for Effects on Small Marine Mammals. Hermannsen, L., Tougaard, J., Beedholm, K., Nabe-Nielsen, J., & Madsen, P. T. (2015). *PLoS ONE*, 10(7), e0133436. doi: 10.1371/journal.pone.0133436

Abstract: Airguns used in seismic surveys are among the most prevalent and powerful anthropogenic noise sources in marine habitats. They are designed to produce most energy below 100 Hz, but the pulses have also been reported to contain medium-to-high frequency components with the potential to affect small marine mammals, which have their best hearing sensitivity at higher frequencies. In shallow water environments, inhabited by many of such species, the impact of airgun noise may be particularly challenging to assess due to complex propagation conditions. To alleviate the current lack of knowledge on the characteristics and propagation of airgun pulses in shallow water with implications for effects on small marine mammals, we recorded pulses from a single airgun with three operating volumes (10 in³, 25 in³ and 40 in³) at six ranges (6, 120, 200, 400, 800 and 1300 m) in a uniform shallow water habitat using two calibrated Reson 4014 hydrophones and four DSG-Ocean acoustic data recorders. We show that airgun pulses in this shallow habitat propagated out to 1300 meters in a way that can be approximated by a 18log(r) geometric transmission loss model, but with a high pass filter effect from the shallow water depth. Source levels were back-calculated to 192 dB re $\mu\text{Pa}^2\text{s}$ (sound exposure level) and 200 dB re 1 μPa dB Leq-fast (rms over 125 ms duration), and the pulses contained substantial energy up to 10 kHz, even at the furthest recording station at 1300 meters. We conclude that the risk of causing hearing damage when using single airguns in shallow waters is small for both pinnipeds and porpoises. However, there is substantial potential for significant behavioral responses out to several km from the airgun, well beyond the commonly used shut-down zone of 500 meters.

> Underwater Noise from a Wave Energy Converter Is Unlikely to Affect Marine Mammals. Tougaard, J. (2015). *PLoS ONE*, 10(7), e0132391. doi: 10.1371/journal.pone.0132391

Underwater noise was recorded from the Wavestar wave energy converter; a full-scale hydraulic point absorber, placed on a jack-up rig on the Danish North Sea coast. Noise was recorded 25 m from the converter with an autonomous recording unit (10 Hz to 20 kHz bandwidth). Median sound pressure levels (Leq) in third-octave bands during operation of the converter were 106–109 dB re 1 μPa in the range 125–250 Hz, 1–2 dB above ambient noise levels (statistically significant). Outside the range 125–250 Hz the noise from the converter was undetectable above the ambient noise. During start and stop of the converter a more powerful tone at 150 Hz (sound pressure level (Leq) 121–125 dB re 1 μPa) was easily detectable. This tone likely originated from the hydraulic pump which was used to lower the absorbers into the water and lift them out of the water at shutdown. Noise levels from the operating wave converter were so low that they would barely be audible to marine mammals and the likelihood of negative impact from the noise appears minimal. A likely explanation for the low noise emissions is the construction of the converter where all moving parts, except for the absorbers themselves, are placed above water on a jack-up rig. The results may thus not be directly transferable to other wave converter designs but do demonstrate that it is possible to harness wave energy without noise pollution to the marine environment.

> Cetacean noise criteria revisited in the light of proposed exposure limits for harbour porpoises. Tougaard, J., Wright, A. J., & Madsen, P. T. (2015). *Marine Pollution Bulletin*, 90(1-2), 196-208. doi: 10.1016/j.marpolbul.2014.10.051

Abstract: The impact of underwater noise on marine life calls for identification of exposure criteria to inform mitigation. Here we review recent experimental evidence with focus on the high-frequency cetaceans and discuss scientifically-based initial exposure criteria. A range of new TTS experiments suggest that harbour and finless porpoises are more sensitive to sound than expected from extrapolations based on results from bottlenose dolphins. Furthermore, the results from TTS experiments and field studies of behavioural reactions to noise, suggest that response thresholds and TTS critically depend on stimulus frequency. Sound exposure levels for pure tones that induce TTS are reasonably consistent at about 100 dB above the hearing threshold for pure tones and sound pressure thresholds for avoidance reactions are in the range of 40–50 dB above the hearing threshold. We propose that frequency weighting with a filter function approximating the inverted

audiogram might be appropriate when assessing impact.

> Effect of seal scarers on seals. L., Hermannsen, L., & Tougaard, J. (2015). Literature review for the Danish Energy Agency (pp. 19). Roskilde: Aarhus University, DCE.

Abstract: A number of studies have been conducted to test the effectiveness of seal scarers, or acoustic harassment devices. Most studies have focused on the application of seal scarers in fisheries, with the purpose of reducing depredation on catch and damage to fishing gear. Other studies, including a few on captive seals, have addressed the now widespread use of seal scarers as a mitigation tool, intended to keep seals away from potentially harmful noise generated by offshore construction activities, most notably pile driving of foundations for offshore wind turbines.

The different studies are very diverse with respect to methods used and specific questions addressed and are thus difficult to compare directly. Some conclusions relevant for mitigation can nevertheless be drawn across the studies:

- Of the different types of seal scarers tested, the Lofitech device appears consistently more effective at deterring seals than the other commonly used type, the Airmar dB II plus.
- No differences in response between harbour seals and grey seals were evident in the studies, although the sample sizes are too small to draw firm conclusions.
- Minimum deterrence distance for the Lofitech seal scarer is estimated to range between 200 and 600 m and for the Airmar dB II plus around 50 m.

The above distances relate only to use for the purpose of mitigation of hearing injury in connection with pile driving or other loud underwater noise. Within the context of fishery, distances are expected to be much smaller as there is a strong food incentive for the seals to tolerate high noise levels.

> Harbour porpoises react to low levels of high frequency vessel noise. Dyndo, Monika; Wisniewska, Danuta Maria; Rojano Doñate, Laia; Madsen, Peter Teglberg.

I: Scientific Reports, Vol. 5, 11083, 2015.

Abstract: Cetaceans rely critically on sound for navigation, foraging and communication and are therefore potentially affected by increasing noise levels from human activities at sea. Shipping is the main contributor of anthropogenic noise underwater, but studies of shipping noise effects have primarily considered baleen whales due to their good hearing at low frequencies, where ships produce most noise power. Conversely, the possible effects of vessel noise on small toothed whales have been largely ignored due to their poor low-frequency hearing. Prompted by recent findings of energy at medium- to high-frequencies in vessel noise, we conducted an exposure study where the behaviour of four porpoises (*Phocoena phocoena*) in a net-pen was logged while they were exposed to 133 vessel passages. Using a multivariate generalised linear mixed-effects model, we show that low levels of high frequency components in vessel noise elicit strong, stereotyped behavioural responses in porpoises. Such low levels will routinely be experienced by porpoises in the wild at ranges of more than 1000 meters from vessels, suggesting that vessel noise is a, so far, largely overlooked, but substantial source of disturbance in shallow water areas with high densities of both porpoises and vessels.

> Noise exposure criteria for harbour porpoises. Tougaard, Jakob; Wright, Andrew J.; Madsen, Peter Teglberg.

The effects of noise on aquatic life II. red. / Art N. Popper; Anthony Hawkins. Vol. 875 Springer, 2015. s. 1167-1173 (Advances in Experimental Medicine and Biology).

> Marine mammals and underwater noise in relation to pile driving - Working Group 2014. P., Maxon, C. M., Tarpgaard, E., Thomsen, F., Schack, H. B., Tougaard, J., Heilskov, N. F., Teilmann, J., Madsen, K. N., Mikaelson, M. Aa. (2015). Report to Energinet.dk 21-1-2015.

Suggested guidelines for estimating impact from pile driving on porpoises and determine the need for additional mitigation measures.

In June 2014 Energinet.dk formed a working group with the task of investigating how underwater noise from the installation of impact driven foundations at the planned offshore wind farms could be regulated in order to take due consideration of protected marine species. It was the wish that the work of the group could be used as basis for setting forth the regulation for Horns Rev 3 as well as being generalised to serve as basis for future regulation of underwater noise.

The group conducted a sequence of seminars and presented the preliminary results to the Danish Nature Agency and the Danish Energy Agency on September 1st 2014. Based on this presentation the agencies prepared and agreed the regulation for Horns Rev 3.

This present memorandum contains a written description of the findings and recommendations of the working group, which include recommendations on future regulation on underwater noise from pile driving.

2.3 Major Incidents

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

	Date	Location	Type of Incident	Further Information
Incident				
Incident				
Incident				
Incident				
Incident				

2.5 Other Forms of Disturbance

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

> Do larger tag packages alter diving behavior in harbor porpoises?. Berga, Alba Solsona; Wright, Andrew J.; Galatius, Anders; Sveegaard, Signe; Teilmann, Jonas.

I: Marine Mammal Science, Vol. 31, Nr. 2, 2015, s. 756-763.

> Vertebral column deformities in white-beaked dolphins from the eastern North Atlantic. Bertulli, Chiara G.; Galatius, Anders; Kinze, Carl C.; Rasmussen, Marianne H.; Deaville, Rob; Jepson, Paul; Vedder, Elisabeth J.; Contreras, Guillermo J. Sanchez; Sabin, Richard C.; Watson, Alastair.

I: Diseases of Aquatic Organisms (Online), Vol. 116, Nr. 1, 17.09.2015, s. 59-67.

Five white-beaked dolphins *Lagenorhynchus albirostris* with outwardly vertebral kyphosis, kyphoscoliosis or lordosis were identified during a photo-identification survey of over 400 individuals (2002-2013) in Faxaflói and Skjálfandi Bays, Iceland. In addition, 3 stranding reports from Denmark, The Netherlands and the UK were analysed, providing both external observation and post mortem details of axial deviations of the vertebral column in this species. Two of the free-ranging cases and 2 of the stranded specimens appeared to have an acquired disease, either as a direct result of trauma, or indirectly from trauma/wound and subsequent infection and bony proliferation, although we were unable to specifically identify the causes. Our data represent a starting point to understand vertebral column deformations and their implications in white-beaked dolphins from the eastern North Atlantic. We recommend for future necropsy cases to conduct macro- and microscopic evaluation of muscle from both sides of the deformed region, in order to assess chronic or acute conditions related to the vertebral deformations and cause of death.

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.

> The Natura 2000 project aims to ensure endangered and valuable species. In this project 16 areas has been selected to protect the Harbour Porpoise.

<http://naturerhverv.dk/fiskeri/natura-2000-i-hav/marsvin/>

http://www.naturstyrelsen.dk/Udgivelser/Aarstal/2013/Vandmiljoe_og_Natur_2012_NOVANA.htm

> In June 2011, Denmark began a monitoring program of the designated SACs (special areas of conservations, Natura2000) for harbour porpoises. Passive acoustic dataloggers, CPODs, have been deployed in two SACs, an acoustic porpoise survey has been conducted in the Inner Danish waters, two aerial surveys have been performed covering SACs: one in the North Sea and one in Skagerrak.

3.2 GIS Data

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

> GIS data in relation to boundaries and Natura2000 areas can be found on the webpage of the Danish Ministry of the Environment:

Surveys and Research

4.1 Abundance, Distribution, Population Structure

Overview of Research on Abundance, Distribution and Population Structure

> Defining management units for cetaceans by combining genetics, morphology, acoustics and satellite tracking. Sveegaard, Signe; Galatius, Anders; Dietz, Rune; Kyhn, Line Anker; Koblitz, Jens C.; Amundin, Mats; Nabe-Nielsen, Jacob; Sinding, Mikkel Holger Strander; Andersen, Liselotte Wesley; Teilmann, Jonas. I: *Global Ecology and Conservation*, Vol. 3, 2015, s. 839-850.

Managing animal units is essential in biological conservation and requires spatial and temporal identification of such units. Since even neighbouring populations often have different conservation status and face different levels of anthropogenic pressure, detailed knowledge of population structure, seasonal range and overlap with animals from neighbouring populations is required to manage each unit separately. Previous studies on genetic structure and morphologic separation suggests three distinct populations of harbour porpoises with limited geographic overlap in the North Sea (NS), the Belt Sea (BS) and the Baltic Proper (BP) region. In this study, we aim to identify a management unit for the BS population of harbour porpoises. We use Argos satellite data and genetics from biopsies of tagged harbour porpoises as well as acoustic data from 40 passive acoustic data loggers to determine management areas with the least overlap between populations and thus the least error when abundance and population status is estimated. Discriminant analysis of the satellite tracking data from the BS and NS populations showed that the best fit of the management unit border during the summer months was an east-west line from Denmark to Sweden at latitude 56.95°N. For the border between BS and BP, satellite tracking data indicate a sharp decline in population density at 13.5°E, with 90% of the locations being west of this line. This was supported by the acoustic data with the average daily detection rate being 27.5 times higher west of 13.5°E as compared to east of 13.5°E. By using this novel multidisciplinary approach, we defined a management unit for the BS harbour porpoise population. We recommend that these boundaries are used for future monitoring efforts of this population under the EU directives. The boundaries may also be used for conservation efforts during the summer months, while seasonal movements of harbour porpoises should be considered during winter.

4.2 Technological Developments

New Technological Developments

> Developing a new research Tool for use in free-ranging cetaceans: recovering cortisol from harbour porpoise skin. Bechshøft, Thea Østergaard; Wright, Andrew John; Weisser, Johan J.; Teilmann, Jonas; Dietz, Rune; Hansen, Martin; Björklund, Erland; Styrihave, Bjarne. I: *Conservation Physiology*, Vol. 3, Nr. 1, 2015.

We developed a chemical analytical procedure for sampling, extracting and determining epidermal skin cortisol concentrations (SCCs) in the harbour porpoise (*Phocoena phocoena*) using gas chromatography-tandem mass spectrometry. In brief, this involved a pressurized liquid extraction with a two-step solid-phase clean-up. A derivatization step was conducted prior to detection. To evaluate the new assay, cortisol was analysed in three different sample types obtained from four harbour porpoises: skin plates, dorsal fin skin plugs (with and without lidocaine) and epidermal scrapes. Skin cortisol concentrations could be measured using the new assay in the majority of the tested skin samples down to a minimal sample size of 49 mg dry weight (dw). Water content ranged from 10 to 46% in the plug samples, which had SCCs from 2.1 to 77.7 ng/g dw. Epidermal scrape samples had the highest water content (83–87%) and lower SCCs (0.6–15 ng/g dw), while the skin plates had intermediate water contents (60–66%) and SCCs of 2.6–13.0 ng/g dw. SCC was slightly higher in plugs with lidocaine than without (average values of 41 and 33 ng/g dw, respectively). Substantial within-individual variations in cortisol concentrations are also common in other matrices such as blood and hair. Some important factors behind this variation could be e.g. the animal's sex, age, body condition, reproductive stage, and the body region sampled, as well as season, moulting cycles and water temperature. Clearly, more research into SCCs is required. The findings described here represent the first critical steps towards using epidermal skin cell samples to assess chronic stress levels in cetaceans and the development of a widely applicable health-assessment tool in these species.

Use of Bycatches and Strandings

Post-Mortem Research Schemes

5.1 Contact Details

Contact details of research institutions and focal point

> The National Veterinary Institute, Technical University of Denmark, Bülowsvej 27, 1870 Frederiksberg C, Denmark. Phone +4535886719, email: mesi@vet.dtu.dk

> The Fisheries and Maritime Museum, Tarpbagevej 2, 6710 Esbjerg V, Denmark.

Contact person: Lasse Fast Jensen, phone +45 76122000, email: lfj@fimus.dk

5.2 Methodology

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

> Standardized post mortem protocols

5.3 Samples

Collection of samples (type, preservation method)

> The National Veterinary Institute, necropsies (contact: Mette Sif Hansen, mesi@vet.dtu.dk)

Collection of samples for:

Parasitology (lung, intestines, diaphragma)

Storage (lung and spleen)

Other tissues on indication

> Collection of samples to:

Aarhus University (contact: Anders Galatius, agj@dmu.dk) and The Fisheries and Maritime Museum (contact: Lasse Fast Jensen, lfj@fimus.dk): teeth, muscle, skin, blubber, liver, kidney, stomach contents, urine, blood, spleen, gonads/reproductive organs, lung, diaphragma, faeces

5.5 Additional Information

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

> Necropsy findings of marine mammals are reported on an annual basis in a report (in Danish) from DTU-VET for the Danish Nature Agency. The latest available report covers 2014.

<http://www.vildtsundhed.dk/Om-Vildtsundhed-dk/Aarsrapporter>

Activities and Results

5.6 Necropsies

Number of necropsies carried out in the reporting period

	Number	Recorded cause of death
<i>Phocoena phocoena</i>	4	
<i>Tursiops truncatus</i>		
<i>Delphinus delphis</i>	1	Short-beaked common dolphin (<i>Delphinus delphis</i>) No apparent cause of death Autopsied at DTU-VET
<i>Stenella coeruleoalba</i>		
<i>Grampus griseus</i>		
<i>Globicephala melas</i>	1	
<i>Globicephala macrorhynchus</i>		
<i>Lagenorhynchus albirostris</i>	3	

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)		

Relevant New Legislation, Regulations and Guidelines

6.1 New Legislation, Regulations and Guidelines

Please provide any relevant information

- › The Danish Nature Agency has drafted a new Action plan for stranded cetaceans in Denmark in 2012.
- › Natura 2000 as described in section A

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.

> Fjord&Bælt in Kerteminde, Denmark, houses three harbour porpoise for research and public display. The center is visited by more than 55,000 guests every year, including more than 7,000 school children. A long range of Danish and international media teams (TV, radio, newspapers, home pages) visit the center every year and usually focus their outreach on harbour porpoise research and conservation.

Fjord&Bælt works closely together with the University of Southern Denmark, and University of Århus.

